

JAMBERS

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PAPERS FOR THE PEOPLE

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CHAMBERS'S



PAPERS FOR THE PEOPLE.

ARCTIC EXPLORATIONS.

THE varied physical aspect of the globe offers as much to charm or awe the eye of man as to minister to his comfort and wellbeing. From the glowing heat and gorgeous vegetation of the torrid zone, we move through all gradations of climate and feature to the frigid regions of either pole, where perpetual ice and a depressed temperature present an extraordinary contrast to the lands of the sun: from intensest heat we pass to intensest cold, from the sandy deserts of the south to the icy deserts of the north. Yet there is as much in the frozen zone to impress and elevate the mind of the beholder as in the countries where nature displays herself in rich and exuberant loveliness. Beyond the seventieth degree of latitude not a tree meets the eye, wearied with the white waste of snow: forests, woods, even shrubs have disappeared, and given place to a few lichens and creeping woody plants which scantily clothe the indurated soil. Still, in the farthest north, nature claims her birthright of beauty; and in the brief and rapid summer she brings forth numerous flowers and grasses to bloom for a few days, until again blasted by the swiftly-recurring winter.

In these regions certain mysterious phenomena exhibit their most powerful effects. here is the point of attraction of the compass needle; and here the dipping needle, which lies horizontal at the equator, points straight downwards. Slowly, in its cycle of nearly two thousand years, this centre or pole of magnetic attraction revolves in obedience to laws as yet unknown. Two degrees farther towards the north is situated the pole of cold—a mystery like the former to science, but equally inciting to curiosity. If induction may be trusted, the pole of the earth is less cold than the latitudes 15° below it.

Round the shores and seas of the arctic regions ice ever accumulates: a circle of two thousand miles diameter is occupied by frozen fields and flocks of vast extent, or piled high with hugest forms, awful yet fantastic as a dreamer's fancy. Mountain masses—

'Whose blocks of sapphire seem to mortal eye
Hewn from cerulean quarries in the sky,
With glacier battlements that crowd the spheres,
The slow creation of six thousand years,
Amidst immensity they tower sublime,
Winter's eternal palace, built by Time.'

Here the months are divided into long periods of daylight and darkness: for many weeks the sun sinks not below the horizon; for three dreary months he appears not above it—

'And morning comes, but comes not clad in light;
Uprisen day is but a paler night.'

But, in the absence of the great luminary, the vivid coruscations of the aurora borealis illuminate the wintry landscape, streaming across the skies in broad sheets of light, flashing in multi-coloured rays, or quivering in faint and feathery scintillations—a light that takes away the irksomeness of gloom, and makes the long night wondrous.

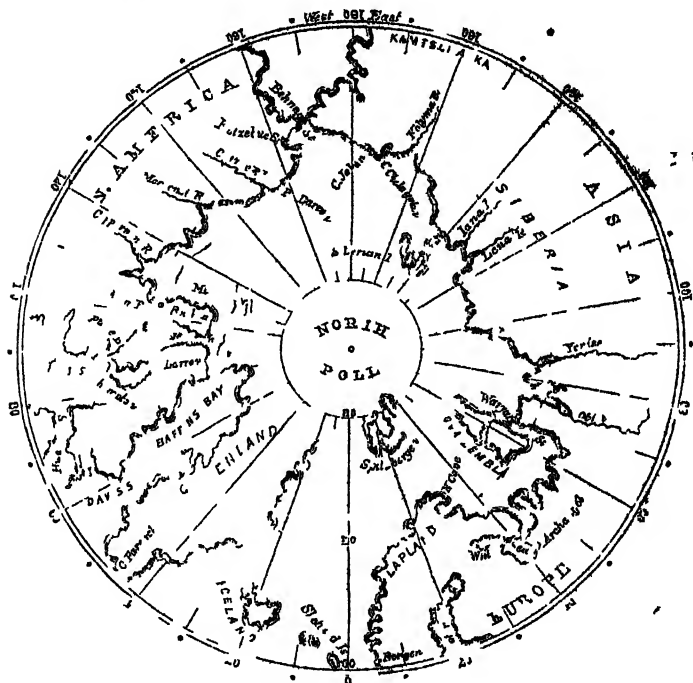
The desolate grandeur of the scene is in many parts increased by the entire absence of animated nature; in others the dearth of vegetation is compensated by superabundance of animal life. Wiangell tells us that 'countless herds of reindeer, elks, black bears, foxes, sables, and gray squirrels, fill the upland forests; stone foxes and wolves roam over the low grounds. Enormous flights of swans, geese, and ducks arrive in spring, and seek deserts where they may moult and build their nests in safety. Eagles, owls, and gulls pursue their prey along the seacoast; ptarmigan run in troops among the bushes; little snipes are busy along the brooks and in the morasses; the social crows seek the neighbourhood of men's habitations; and when the sun shines in spring, one may even sometimes hear the cheerful note of the finch, and in autumn that of the thrush.'

'There is,' as observed by Lieutenant-Colonel Sabine, 'a striking resemblance in the configuration of the northern coasts of the continents of Asia and America for several hundred miles on either side of Behring's Strait; the general direction of the coast is the same in both continents, the latitude is nearly the same, and each has its attendant group of islands to the north—the Asiatic continent, those usually known as the New Siberian Islands—and the American, those called by Sir Edward Parry the North Georgian Group, and since fitly named, from their discoverer, the Parry Islands. The resemblance includes the islands also, both in general character and latitude.'

With respect to the Arctic Ocean, a late writer explains—'We may view this great polar sea as enclosed within a circle whose diameter is 40°, or 2400 geographical miles, and circumference 7200 miles. On the Asiatic side of this sea are Nova Zembla and the New Siberian Islands, each extending to about the 76th degree of latitude. On the European and American sides are Spitzbergen, extending to about 80°, and a part of Old Greenland, whose northern extremity is yet unknown. Facing America is the large island washed by Regent's Inlet, Parry's or

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Melville's Islands, with some others, in latitude 70° to 78° , and beyond these nothing is known of any other land or islands; and if we may form an opinion, by inspecting the general chart of the earth, it would be, that no islands exist which could in any shape obstruct navigation. It is to these regions, and the labours of which they have been the scene, that we have for a short period to direct our attention.



The history of Arctic explorations properly begins at a period earlier by several centuries than is generally believed. Careful researches promoted and carried on of late years by the Society of Northern Antiquaries of Copenhagen, and others interested in the subject, have established the fact, that Newfoundland, Greenland, and several parts of the American coast, were visited by the Scandinavians—the Northmen and Sea-Kings of old—in the ninth and tenth centuries. While Alfred was engaged in expelling the Danes from England, and bestowing the rudiments of civilisation on his country, and Charles the Bald was defending his kingdom against a host of competitors, the daring sea-rovers were forming settlements in Iceland. One hundred and twenty-five years later, A. D. 1000, Leif Erickson led the way to the westward, and landed on the shores of New England, between Boston and New York, naming the country Vinland, from the wild vines which grew in the woods. These adventurers made

their way also to a high northern latitude, and set up stones, carved with Runic inscriptions, with the date 1135, on Women's Islands—in latitude $72^{\circ} 55'$ —Baffin's Bay, where they were discovered in 1824. The colonists on the eastern coast of this great bay made regular trips to Lancaster Sound and part of Barrow's Strait in pursuit of fish 'more than six centuries before the adventurous voyage of Parry,' and carried on a trade with the settlers in Markland, as Nova Scotia was then called. Their numbers must have been considerable, for in Greenland there were three hundred homesteads or villages, and twenty churches and convents. They kept up intercourse with Europe until 1406, when it was interrupted by extraordinary accumulations of ice upon their coasts; and though the Danish government has made repeated attempts to ascertain their fate, it still remains in doubt; the supposition is, that all have perished from privation or violence of the natives. Spitzbergen, too, contained numerous colonists: graves are frequently met with on its shores; in one place Captain Buchan saw several thousands, the corpses in some of them as fresh as when first interred, preserved by the rigour of the climate.

These early explorers were unable to take full advantage of their American discoveries; this was reserved for a later period. 'Intervening,' observes Humboldt, 'between two different stages of cultivation, the fifteenth century forms a transition epoch, belonging at once to the middle ages and to the commencement of modern times. It is the epoch of the greatest discoveries in geographical space, comprising almost all degrees of latitude, and almost every gradation of elevation of the earth's surface. To the inhabitants of Europe it doubled the works of creation, while at the same time it offered to the intellect new and powerful incitements to the improvement of the natural sciences in their physical and mathematical departments.'

As we approach the period here referred to, we find a new spirit at work; no longer the boisterous adventurousness of the Northmen, but an earnest spirit of enterprise. In 1380, the Zeni, two Venetian navigators, voyaged into the north, ignorant of the fact, that the Scandinavians had preceded them by three centuries, and brought home accounts of the countries they had seen. Within eighty years after this event, the gulf and river of St Lawrence and Newfoundland were visited by the three Corteals: the father returned to Portugal, but his two sons perished while endeavouring to extend his discoveries. In 1497, during the reign of Henry VII., British enterprise was first directed to a region in which it has been subsequently developed to a degree without example; and Cabot, or Cabota the younger, landed at Labrador eighteen months before Columbus saw the mainland of tropical America. He contemplated also a voyage to the pole, and sailed up to $67\frac{1}{2}^{\circ}$ of north latitude. It was thought scarcely possible that the newly-discovered continent stretched so far from north to south without a single opening to the westward, and the search for this became the prime object with mercantile adventurers, who hoped to find a way to the rich and gorgeous countries lying beyond. Sir Hugh Willoughby was sent out by the Muscovy Company with two ships to find a north-east passage 'to Kathay and India;' and pushed his way as far as Nova Zembla, from whence, being stopped by ice, he returned to a lower latitude, and in September 1553

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put in at the mouth of the river Arzina in Lapland. A melancholy interest attended this event, little anticipated by the unfortunate leader when he wrote in his journal—'Thus remaining in this haven the space of a weeke, seeing the yeare farre spent, and also very evill wether—as frost, snows, and haile, as though it had beene the deepe of winter, wee thought it best to winter there.' The dreary season passed away, and in the following year some Russian fishermen found Sir Hugh and his crew all frozen to death. The other vessel, commanded by Richard Chancellor, reached Archangel, and opened the way for our commercial intercourse with Russia.

Next in importance are the three voyages by Frobisher in 1576-78. He discovered the entrance to Hudson's Strait, and explored that still known as Frobisher's; but failed in penetrating to the westward. Great hopes were excited by some lumps of yellow glistening ore which he brought home, and in his later voyages gold-mines were not less to be searched for than the north-west passage. The study of natural phenomena was not, however, altogether lost sight of, as appears by a passage from the instructions issued under the authority of Elizabeth for the gallant seaman's guidance. 'Yf yt be possible,' so runs the official document, 'you shall have some persons to winter in the straight, giving them instructions how they may observe the nature of the ayre and state of the countrie, and what tyme of the yeare the straight is most free from yce; with who you shall leave a sufficient preparation of victualls and weapons, and also a pynnas, with a carpenter, and thyngs necessarie, so well as may be.' Then followed Sir Humphrey Gilbert's expedition to colonise Newfoundland: the fate of this 'devout gentleman and philosopher' has been touchingly narrated by a transatlantic poet—

'Eastward from Campobello
Sir Humphrey Gilbert sailed;
Three days or more he seaward bore,
Then, alas! the land-wind failed.

Alas! the land-wind failed,
And ice-cold grew the night;
And never more, on sea or shore,
Should Sir Humphrey see the light.

He sat upon the deck,
The Book was in his hand;
"Do not fear! Heaven is as near."
He said, "by water as by land."

The three voyages by Davis in 1585-88 enlarged the limits of research; by the discovery of the strait which still bears his name, he opened the way to Baffin's Bay and the Polar Sea; he also surveyed a considerable extent of the Greenland coast. Various attempts to find a passage were also made during this century by Spaniards, French, Danes, and Dutch; those of the last-mentioned nation being the most memorable. To avoid the risk of a voyage to India across the ocean, over which Spain claimed the supremacy, they sought for a shorter passage by the north-east.

The three voyages by William Barentz, 1594-96, afford striking examples of dangers encountered, and manful perseverance in struggling against them. He made his way to the sea between Spitzbergen and Nova Zembla, until, to quote the narrative of the third voyage, 'we came

to so great a heape of ice, that we could not sayle through it.' In August of the last-mentioned year, the vessel was enbayed by an unusual drifting of the ice, which, crushing around them with a violence that 'made all the haire of our heads to rise upright with feare,' forced them 'in great cold, povertie, miserie, and griefe,*to stay all that winter.' They exerted themselves to the utmost to avoid so terrible an alternative; but on the 11th of September, as is related, 'we saw that we could not get out of the ice, but rather became faster, and could not loose our ship, as at other times we had done, as also that it began to be winter, we tooke counsell together what we were best to doe, according to the time, that we might winter there, and attend such adventure as God would send us; and after we had debated upon the matter (to keepe and defend ourselves both from the colde and wilde beastes), we determined to build a house upon the land, to keepe us therein as well as weo could, and so to commit ourselves unto the tuition of God.' While casting about for material for the edifice, to their great joy they discovered a quantity of drift timber, which they regarded as a special interposition of Providence in their behalf, and 'were much comforted, being in good hope that God would show us some further favour; for that wood served us not onely to build our house, but also to burne, and serve us all the winter long; otherwise, without all doubt, we had died there miserably with extreme cold.'

Parties were thereupon set to work to build the house, and drag their stores from the ship on hand-sleds, in which labours they were grievously interrupted by bears and severity of the weather: if any one held a nail between his lips, the skin came off with as much pain on taking it out again as though the iron had been red-hot; yet notwithstanding the cold, there was open sea for many weeks an 'arrow-shot' beyond their ship. The dwelling, slow in progress, was finished by the end of October, and thatched with sea-wrack. the more effectually to close the chinks in the roof and walls, and 'we set up our dyall, and made the clocke strike.' On the 4th November 'wee saw the sunne no more, for it was no longer above the horison; then our chirurgion made a bath (to bathe us in) of a wine-pipe, wherein wee entred one after the other, and it did us much good, and was a great meanes of our health.' All the spare clothing was distributed, regulations established with regard to diet, and duties apportioned; the master and pilot being exempted from cleaving wood, and other rude labours. Traps were set to catch foxes for food, and cheerfulness was as much as possible promoted; but at times they were snowed up, and could not open their door for many days, and had no light but that of their fire: they were tormented with smoke, while ice two inches thick formed in their sleeping-berths. The clock stopped with the cold, after which they could only reckon time by 'the twelve-hour glass.'

The misery they endured may be judged of by the tone of some of the entries in their journal; such suffering was but too frequent:—'It was foule weather againe. with an easterly wind and extreame cold, almost not to bee indured; whereupon wee lookt pittifully one upon the other, being in great feare that if the extremitie of the cold grew to bee more, and more, wee should all dye there with cold; for that what fire seaver wee made it would not warme us; yea, and our sacke, which is so hot, was frozen very hard, so that when we were every man to have his

part, we were forced to melt it in the fire, which we shared every second day about halfe a pint for a man, wherewith we were forced to sustayne ourselves; and at other times wee dranke water, which agreed not well with the cold, and we needed not to coole it with snow or ice; but we were forced to melt it out of the snow.' Sometimes, while they sat at the fire, 'and seemed to burne on the fore-side, we froze behind at our backes, and were all white as the countrey men use to bee when they come in at the gates of the toune in Holland with their sleds, and have gone all night.' It might indeed seem that no room remained for hope; yet under date December 19 we read, 'wee put each other in good comfort, that the sunne was then almost halfe over, and ready to come to us againe, which wee sore longed for, it being a weary time for us to bee without the sunne, and to want the greatest comfort that God sendeth unto man here upon the earth, and that which rejoyceth every living thing.' They kept 'Twelfth-Night also, and 'made pancakes with oyle, and every man a white bisket, which we sopt in wine: and so, supposing that we were in our owne countrey, and amongst our friends, it comforted us as well as if we had made a great banquet in our owne house: and wee also made tickets, inl our gunner was king of Nova Zembla, which is at least 200 miles long, and lyeth between two seas.'

On the 24th January they saw the sun again, a sight that reanimated their sinking spirits, confined as they had been with no light but that of the fire, and often prevented by heavy snow from going out of their dwelling for many days in succession. Several of the party were sick—one died: a grave seven feet deep was dug in the snow; and then, as is mournfully recorded, 'after that we had read certaine chapters and sung some psalmes, we all went out and buried the man.' As the days lengthened, they set about preparations for departure, and repaired their two boats, and had good hope 'to get out of that wilde, desart, irkesome, fearfull, and cold countrey.' On the 13th of June the survivors, twelve in number, left the desolate shore after a stay of ten months. Barentz and two others were so worn out with disease, that they died soon after, amid all the privations of exposure in small boats in an ice-encumbered sea. The remainder struggled onwards, manfully overcoming the perils that beset them; and in September reached the coast of Lapland, where 'wee saw some trees on the river side, which comforted us, and made us glad, as if wee had then come into a new world; for in all the time that wee had been out we had not scene any trees.' On the 11th of the same month, after a voyage of 1143 miles, these brave-hearted men set up their boats in the 'merchants' house at Coola, as a sign and token of their deliverance; and embarking on board a Dutch ship, in the course of a few weeks once more set foot in their native country.

Henry Hudson, 'the North Seas' great Columbus,' comes next in the list of explorers. In his first voyage, with a crew of only ten men and a boy (1607), he penetrated as far as 82° of north latitude, and discovered part of the eastern coast of Greenland. His second attempt was made on the track of Barentz, but with no better success. In his third and last voyage in 1610, he passed the strait which now bears his name, and entered the great inland sea known as Hudson's Bay. Concluding that this led to the north-west passage, he passed the winter there, with the intention of

resuming operations early in the following year; but in the spring his crew, wearied with hardship, mutinied, and Hudson, with his son and seven others, was turned adrift in a small boat, and never afterwards heard of:

'Of all the sea-shapes death has worn, may mariners never know
Such fate as Hendrik Hudson found in the labyrinth of snow.'

We are told in the history of the voyage, that later in the same day on which the fated few were abandoned, the conspirators saw the boat again, when 'they let fall the main-sayle, and out with their top-sayles, and flye as from an enemy.' Continuing thus that night and the next day, 'they saw not the shallop, nor ever after.' But punishment overtook the perpetrators of this foul crime: four were killed in a skirmish with the Esquimaux near Cape Digges; and another died on the passage to Ireland, where the survivors arrived in a famishing condition, having been reduced to such extremities for want of food as to devour their candles. Strange to relate, no attempt was made to bring the mutineers to trial; some of them, indeed, were afterwards employed in further explorations.

Great hopes were entertained that the much-desired passage would be found leading out of Hudson's Bay; and a good deal of controversy on the question arose from time to time among contending voyagers and their abettors. Old Purchas says, 'As the world is much beholding to that famous Columbus, for that hee first discovered unto us the West Indies; and to the Portugal for the finding out the ordinarie and as yet the best way that is knowne to the East Indies by Cape Bona Speranza; so may they and all the world be in this beholding to us in opening a new and large passage, both much neerer, safer, and farre more wholesome and temperate through the continent of Virginia, and by Fretum Hudson, to all those rich countries bordering upon the South Sea in the East and West Indies.'

Between this period and 1616, those arms of the sea known as Sir Thomas Rowe's Welcome and Fox Channel were discovered; and in the year just mentioned Baffin sailed into and explored the vast bay, 800 miles long, and 300 wide, named after him. For a long time his report of its great length was disbelieved, but later researches have confirmed the accuracy of his statements; even the latitudes laid down by him are almost identical with those recently determined with all the advantage of superior instruments. Among other openings, Baffin saw Lancaster Sound, and had he explored it, Parry's discoveries would have been anticipated by two hundred years, as they had been to some extent by the long-forgotten Northmen. The opinion, however at that time, and indeed until within the past thirty years was, that no practicable opening to the Polar Sea existed except that at Behring's Strait. From this period to about the middle of last century, the outlets to the west of Hudson's Bay were the points to which effort was directed; and truly may it be said that these earlier navigators left very little for those who came later. In small vessels, varying from ten to fifty tons burthen, they accomplished more than has since been effected by lavishly-equipped expeditions.

In 1743 parliament offered a reward of £20,000 to any one who should sail to the north-west by way of Hudson's Strait, which passage, it was

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declared, would be 'of great benefit and advantage to the kingdom.' Between 1769-72 Mr Hearne undertook three overland journeys across the territories of the Hudson's Bay Company to the shores of the Polar Sea. He failed in the first two attempts; in the third he succeeded in reaching a large and rapid river the Coppermine— and followed it down nearly to its mouth, but, as there is reason to believe, without actually viewing the sea. The proof of the existence of the river was the most important result of Mr Hearne's labours; for such scientific observations as he attempted are loose and unsatisfactory.

In the following year (1773), in consequence of communications made to the Royal Society on the possibility of reaching the North Pole, Captain Phipps was sent out with two vessels to effect this interesting object. He coasted the eastern shore of Spitzbergen to $80^{\circ} 48'$ of latitude, and was there stopped by the ice, and compelled to return. In 1776 Cook sailed on the fatal expedition which cost England her famous navigator, with instructions to attempt the passage of the Icy Sea from Behring's Strait to Baffin's Bay. The clause of the act above referred to, wherein Hudson's Strait was exclusively specified, was altered to include 'any northern passage' for ships: and £5000 was further voted to any one who should get within one degree of the pole. Cook, with all his perseverance, could not penetrate beyond Icy Cape, latitude $70^{\circ} 15'$, where he found the ice stretching in a compact mass across to the opposite continent, which he also visited, sailing as far as Cape North on the coast of Asia. It would appear that expectations prevailed of the enterprising mariner's success, for a vessel was sent to Baffin's Bay to wait for him, in 1777, in charge of Lieutenant Pickersgill. One other journey within this century remains to be noticed— that by Mackenzie, under sanction of the Hudson's Bay Company, with objects similar to those of Hearne. In 1789 he left Fort Chipewyan, crossed Slave Lake, and descended the Mackenzie River, a stream of much greater magnitude than the Coppermine, to an island where the tide rose and fell. But, as in the case of his predecessor, we have no certainty that he reached the ocean. Rivers, however, play an important part in Arctic discovery; and it was something gained to know that the sea could be reached by their means. We may here observe once for all that these land expeditions, whose prime object has been to determine the northern coast-line of America, are not to be confounded with the attempts to discover the north west passage.

The result of these discouragements was a cessation of naval researches, which continued for many years; but at length a change took place, as sudden and inexplicable as the accumulation of ice from centuries before which cut off the Danish colonies in Greenland from communication with the mother country. In 1816-17 the Greenland whalers reported the sea to be clearer of ice than at any former time within their knowledge. This fact engaged the attention of the Admiralty; and the Council of the Royal Society were consulted as to the prospects of renewed operations in the Arctic regions. Their reply was favourable; and in 1818 two expeditions were fitted out—the one to discover the north-west passage, the other to reach the pole. Captain (now Sir John) Ross and Lieutenant (now Sir Edward) Parry, in the vessels *Isabella* and *Alexander*, were intrusted with the former of these objects.

They were especially charged to examine the great openings described by Baffin as existing at the head of the vast bay which he so diligently explored; and in carrying out these instructions, the commanders found full reason to applaud the care and perseverance of the able navigator who had preceded them by two hundred years. It must be remembered that we are now treating of a period when science put forward its imperative claims, and, when, as at present, something more was required than a meagre chart of a previously-unexplored coast, and graphic accounts of new countries and their inhabitants. Astronomy, geology, meteorology, magnetism, natural history, were all clamorous for new facts, or for satisfactory tests of those already known. For the same reason it is that of late years exploring expeditions have been more interesting to the philosopher than to the general public. Lord Anson returning from the southern seas with wagon-loads of Spanish dollars and doubloons would be hailed with popular acclaim; while Sir James Ross arriving from the Antarctic Ocean with materials for accurate magnetic charts, and records of soundings deep as Mont Blanc's altitude, is the hero of the scientific world.

The open state of the sea greatly facilitated the purposes of the expedition. In August the ships were sailing up Lancaster Sound, with every prospect of an easy passage to the westward; when the commander, fancying that he saw a range of mountains barring all further progress in the distance, hesitated to advance, and finally, throwing away the favourable opportunity, returned with his consort to England.

The *Dorothea* and *Trent*, commanded by Captain Buchan and Lieutenant (now Sir John) Franklin, comprised the expedition destined for the pole. Captain Beechey, to whom we are indebted for an interesting account of the voyage, observes—'The peculiarity of the proposed route afforded opportunities of making some useful experiments on the elliptical figure of the earth; on magnetic phenomena; on the refraction of the atmosphere in high latitudes in ordinary circumstances, and over extensive masses of ice; and on the temperature and specific gravity of the sea at the surface, and at various depths; and on meteorological and other interesting phenomena.' The vessels sailed in April 1818, Magdalena Bay in Spitzbergen having been appointed as a rendezvous in case of separation. For a time they made good progress to the northward, keeping near the shore. At length a furious gale came on, with all the snowy, sleety bitterness of the north, freezing upon the rigging, and encumbering alike the movements of vessel and crew. The *Dorothea* was only saved from being driven on shore by forcing her into the main pack of ice, which afforded shelter. The *Trent*, although in less peril, had suffered severely in the storm; and reluctantly the grand object—pushing northwards—was given up as hopeless. Lieutenants Franklin and Beechey proposed to renew the attempt with dogs, sledges, and baidars—the skin-boats of the Esquimaux—appliances which experience has shown to be generally the most serviceable in ice travelling; but for that time nothing came of the project.

The phenomena peculiar to the north were new to most of those embarked on this expedition. The novelty of constant daylight for several weeks prevented some of the party from taking needful rest, until necessity compelled them to obey the natural laws, as observed by other animated creatures in those regions. Captain Beechey writes—

'Very few of us had ever seen the sun at midnight; and this night happening to be particularly clear, his broad red disk, curiously distorted by refraction, and sweeping majestically along the northern horizon, was an object of imposing grandeur, which rivetted to the deck some of our crew who would perhaps have beheld with indifference the less imposing effect of the icebergs. The rays were too oblique to illumine more than the inequalities of the floes, and falling thus partially on the grotesque shapes either really assumed by the ice, or distorted by the unequal refraction of the atmosphere, so betrayed the imagination, that it required no great exertion of fancy to trace, in various directions, architectural edifices, grottos, and caves here and there, glittering as if with precious metals.'

Among other topics Captain Beechey enters on the theory of iceberg formation, and contrasts it with the analogous effects in an Alpine glacier. The latter slopes, while the former always presents a perpendicular face to the sea—a result produced by the continual increment of rain and snow, and the action of sea-water below in preventing expansion of the base. Icebergs, in fact, are amongst the most surprising of Arctic phenomena. On one occasion the discharge of a musket half a mile distant caused a huge mass to fall, the wave from which heaved a boat with its crew ninety-six feet up the beach, and there left it stove in. Shortly afterwards, the two lieutenants were viewing another part of the same berg, when an avalanche of ice slid from it with a plunge that disturbed the ship four miles away; although they themselves, by keeping the boat's head to the swell, rode it over in safety. On this Captain Beechey remarks—'The piece that had been disengaged at first wholly disappeared under water, and nothing was seen but a violent boiling of the sea, and a shooting up of clouds of spray, like that which occurs at the foot of a great cataract. After a short time it reappeared, raising its head full a hundred feet above the surface, with water pouring down from all parts of it; and then, labouring as if doubtful which way it should fall, it rolled over, and after rocking about some minutes, at length became settled. We now approached it, and found it nearly a quarter of a mile in circumference, and sixty feet out of the water. Knowing its specific gravity, and making a fair allowance for its inequalities, we computed its weight at 421,660 tons. A stream of salt water was still pouring down its sides, and there was a continual cracking noise, as loud as that of a cart-whip, occasioned, I suppose, by the escape of fixed air.'

The failure in the chief object of these two expeditions excited feelings which could only be satisfied by renewed exertions. The mountains said to exist at the bottom of Lancaster Sound were affirmed, by some who had borne part in the abortive voyage, to be ocular deception. The question was soon put to the proof. Two ships, the *Hecla* and *Griper*, commanded by Captain Parry, sailed to explore Lancaster Sound on the 4th May 1819. Every effort was made to arrive on the scene of operation at the earliest possible period, and as the shortest route, the ships were forced into the 'Middle Ice' in Baffin's Bay in the middle of July. This collection of ice is as striking a phenomenon in this part of the sea, as are the great banks of weed, *Fucus natans*, which float with little or no change of place in the Atlantic, off the Azores and the Bahamas. As its name indicates, it occupies a position in the middle of the bay, leaving a narrow channel on the

eastern side, more or less encumbered with drift ice, while on the western side the sea is generally unobstructed. The local position of this body of ice is supposed to be due to the action of conflicting currents, which retain it pretty nearly in one spot. The usual route round its northern extremity, followed by whaling ships, doubles the length of a voyage, and whenever possible, they endeavour to cross the pack in a lower latitude. This was what Parry did. By dint of sawing, heaving, and sailing at the rate of about twelve miles a day, he forced his way through the barrier, more than eighty miles in width, in seven days. A clear sea awaited him on the western side; and by the end of July he was in the entrance of Lancaster Sound, waiting with anxiety and impatience for an easterly breeze. It came at last; both vessels crowded sail; and as Captain Parry relates — 'It is more easy to imagine than to describe the almost breathless anxiety which was now visible in every countenance while, as the breeze increased to a fresh gale, we ran quickly up the Sound. The mast-heads were crowded by the officers and men during the whole afternoon; and an unconcerned observer, if any could have been unconcerned on such an occasion, would have been amused by the eagerness with which the various reports from the crow's nest were received— all, however, hitherto, favourable to our most sanguine hopes.' The question as to a passage was soon settled. 'We were,' pursues the narrative, 'by midnight in a great measure relieved from our anxiety respecting the supposed continuity of land at the bottom of this magnificent inlet, having reached the longitude of 83° 12', where the two shores are still above thirteen leagues apart, without the slightest appearance of any land to the westward of us for four or five points of the compass.'

An inlet ten leagues wide, on the southern shore, was next seen. Thinking that this would lead to the American continent, Captain Parry sailed into it for some distance until stopped by the ice. While here, the singular phenomenon was observed, as it had been by former voyagers, of the compasses becoming useless, the needles losing all directive power, and pointing to any direction in which they might be turned. This effect, which added materially to the difficulty of navigating an unknown sea, was due chiefly to the proximity of the magnetic pole: a successful means of correcting it has since then been discovered, as will be hereafter explained. From this channel, to which the name of Regent's Inlet was given, the ships returned to Barrow's Strait, where, on the 22d August, another wide opening of eight leagues was discovered on the northern shore. Far as the eye could reach it was clear of ice, but no attempt was made to explore it, as all on board the vessels were desirous of getting to the westward: it was called Wellington Channel. Beyond this several islands were passed, the whole group now known as the Parry Islands; and during this part of the voyage a change was noticed in the general direction of the compass needle from westerly to easterly, showing, as Captain Parry observes, that they had 'crossed immediately to the northward of the magnetic pole, and had undoubtedly passed over one of those spots on the globe where the needle would have been found to vary 180° or, in other words, where its north pole would have pointed due south.'

Sailing onwards, the passage narrowed; Melville Island was discovered and named; and on the 4th September the party became entitled to the

parliamentary reward of £5000 offered for attaining 110° of west longitude; a gratifying fact duly commemorated in the appellation of an adjacent headland — Bounty Cape. The narrowing of the channel disappointed the explorers in their hope of making their way to Behring's Strait in one season. Ice was met with; on the 14th September a sudden fall of snow indicated the close of the fine season; the *Griper* was forced on shore; and though got off again, the obstructions were such as to make it evident that no time was to be lost in looking for winter quarters. With some difficulty the course was retraced to a bay in Melville Island; but new ice seven inches in thickness formed so rapidly, that before the vessels could be brought to their anchoring-ground, a channel more than two miles long had to be cut to admit them.

All heavy materials and stores were immediately landed, the decks cleared, and each vessel housed over with a thick tilt-cloth; and to insure as much snugness as possible under the circumstances, the sides were banked up with snow. Notwithstanding the heating apparatus distributed throughout each ship, the sleeping berths were nearly always damp, and coated with ice; and whenever the external air was admitted by the opening of a door, the sudden rush of cold condensed the warm air of the apartment to a visible vapour, which settled and froze on the bulk-heads and beams. Later in the season the berths were taken down, and hammocks slung amidship substituted for them, very much to the comfort and health of the crews—an arrangement which has been followed in subsequent voyages with equal benefit. During the winter all available means were taken to promote health and cheerfulness: when the weather permitted, the men took exercise on shore, and on other occasions were made to run round the deck to the tunes of a hand-organ or to their own songs. Dramatic entertainments were prepared: the first representation took place on the day on which the ice bound adventurers lost sight of the sun, to see it no more for three dreary months, and was repeated fortnightly afterwards. A school was opened, and well attended by the crews, who found learning to read a valuable relief from *ennui* and its concomitant evils; and the officers, among other modes of using the time, started a weekly manuscript newspaper—'The North Georgia Gazette and Winter Chronicle'—in which humour and philosophy were mingled, to the amusement and edification of writers and readers. Those who understand the intimate connection between mental and physical health will best appreciate these attempts to provide occupation for mind and body. But the scientific objects of the expedition were not forgotten: in the observatory built on shore astronomical, magnetical, and meteorological observations were perseveringly recorded, in spite of the rigorous climate, and when the cold was such that to touch the metal of the instruments raised a blister, or took off the skin, just as in a case of burning, it was necessary to hold the breath while observing, otherwise a thin film of ice formed on the eye glasses. Several phenomena peculiar to northern latitudes were taken account of: curious effects of refraction, appearances of the aurora, facility of hearing sounds at great distances—in calm weather conversation could be held between two individuals more than a mile apart with but a slight elevation of the voice; smoke did not rise, but crept along for several miles in a horizontal direction; objects seen at a distance in the dreary waste of snow deceived

the eye, and appeared much larger than they were in reality. February 1820 was the coldest part of the season; the temperature fell to 55° below zero, a degree of frigour which might well be supposed to be unbearable; yet if there be no wind, it can be borne without pain. Mercury froze so as to become malleable, and could be beaten into a variety of forms.

In March preparations were made to fit the ships again for service; the ice which had accumulated inside the *Hecla* from breath and steam was scraped off, making a quantity of seventy-five bushels. On the 12th and 13th May the first ptarmigan, deer, and musk ox, were seen; the animals pass every spring from the mainland to the islands to graze and breed. On the 1st June a party set out to cross the island to its northern shore: the pools were full of fowl, the rapid fervour of an Arctic summer had already converted the snowy waste into 'luxuriant pasture ground,' rich in flowers and grass, with 'almost the same lively appearance as that of an English meadow,' a fact which fully accounts for the periodical migration of animals from the continent.

It was not until the 1st August that the ships were once more fairly afloat, and endeavours made to push to the westward; but the icy barrier which the party had seen on their first approach still barred their progress. The *Griper* again took the ground during a perilous interval, and all further progress in the much-desired direction became hopeless. The heads of the vessels were reluctantly turned to the eastward; they stood out of the sound, surveyed part of Baffin's Bay, and in November returned to England, with all hands, comprising ninety-four individuals, in health, having lost but one during their eighteen months' absence.

In September of the same year that Parry sailed, an overland expedition started from York Factory, Hudson's Bay, under charge of Sir John Franklin, accompanied by Dr (now Sir John) Richardson, two midshipmen—Messrs Back and Hood—and Hepburn a seaman, with the object of exploring the north coast of America to its eastern extremity from the mouth of the Coppermine. There was a chance that Parry might make for the coast in his ships; and if so, the two parties would have co-operated with mutual advantage. Franklin and his party, increased by the addition of sixteen Canadian voyageurs, interpreters, &c. left Fort Chipewyan in July 1820 for Fort Enterprise on Winter Lake, more than 500 miles distant. Here, after walking eighty miles to get a look at the Coppermine, they wintered, while Mr (now Sir George) Back returned on foot to Fort Chipewyan to expedite the transit of stores required for the next year's operations. At the end of five months he rejoined his companions, having walked 1100 miles on snow shoes in the depth of winter: a journey which put his powers of endurance to a severe test, the thermometer being seldom above zero, and on one occasion 57° below it. On the last day of June 1821, the whole party having dragged their canoes and baggage to the river—a tedious and fatiguing service—embarked on the rapid stream, and reached the sea on the 18th July. The main object of the expedition then commenced; and with two birch-bark canoes, each manned by ten men, and fifteen days' provision, Franklin paddled to the eastward. They followed the coast for two weeks, pinched at times for want of food, as some of their pemmican had turned mouldy, till they came to what is now called Coronation Gulf, a distance, reckoning the indentations of the shore, of

555 geographical miles. By this time the canoes, which had gone through some rough duty, were scarcely serviceable; and the stock of provisions was reduced to three days' consumption. Under these circumstances the leaders resolved to return. They walked first to a spot on the shore ten miles distant from their haltingplace, which, with literal truth, was named Point Turnagain. To attempt to reach the Coppermine so late in the season would have been fatal to the whole of the party; they therefore made for Hood's River, discovered by them a few days previously, up which they had ascended to the first rapid by the 26th August. Two small portable canoes were then constructed from the two larger ones, for the purpose of crossing rivers on the journey now before them; and on the 1st September they set off on a straight course for Fort Enterprise, 150 miles distant. The fatigues and privations endured on this route are scarcely to be paralleled: short of food, ill supplied with clothing, and exposed to the howling severity of the climate, the escape of any one of the number appears almost a miracle. Some days, when there was nothing to eat, and no means of making a fire, they passed entirely in bed; on others, after a weary and exhausting travel, their only nourishment on halting for the night was *tripe de roche*, or rock-tripe, a species of lichen, *Gyrophora proboscidea* of botanists, a plant of most nauseous taste, and the cause of cruel bowel complaints to the whole party. Daily they became weaker, and less capable of exertion: one of the canoes was so much broken by a fall, that it was burned to cook a supper; the resource of fishing too was denied them, for some of the men, in the recklessness of misery, threw away the nets. Rivers were to be crossed by wading, or in the canoe; on one of these occasions Franklin took his scat with two of the voyageurs in their frail bark, when they were driven by the force of the stream and the wind to the verge of a frightful rapid, in which the canoe upset, and but for a rock on which they found footing, they would there have perished. On the 19th, 'previous to setting out, the whole party ate the remains of their old shoes, and whatever scraps of leather they had, to strengthen their stomachs for the fatigue of the day's journey. These,' adds Franklin, 'would have satisfied us in ordinary times, but we were now almost exhausted by slender fare and travel, and our appetites had become ravenous. We looked, however, with humble confidence to the great Author and Giver of all good for a continuance of the support which had hitherto been always supplied to us at our greatest need.' A day or two afterwards the remaining canoe was left behind; no intreaties could prevail on the men to carry it farther. Dr Richardson, too, was obliged to abandon his collection of plants and minerals from inability to endure the burthen. The killing of five small deer at this time, however, enabled them to rest for a couple of days to recruit their exhausted strength. On the 26th they came to the Coppermine, the crossing of which, owing to their weak condition, the loss of the canoe, and having to construct a raft of willow branches, detained them until the 4th October. They were now almost in the last stage of starvation; and had it not been for the exertions of Hepburn in collecting tripe de roche, not one of them would have survived. On the 7th, when at twenty-four miles from Fort Enterprise, a division of the party took place: Franklin, with eight of the men, went on, while Richardson stayed behind at the encampment to tend on Hood, who was scarcely able to move. Hep-

burn remained with them. Three of the voyageurs, unable to proceed with Franklin, and Michel, an Iroquois, were permitted to return to the halting-place, where they would be at least certain of fire and rock-tripe, but, with the exception of the Indian, they perished by the way: not one of them was ever seen again. Franklin, with his five survivors, reached Fort Enterprise on the 11th. What a disappointment awaited them! Instead of a cordial welcome from friendly hunters, and abundance of provisions, as had been promised, all was a blank: the building was tenantless.

A note was found from Mr Back, who had journeyed on in advance, stating that he had gone in search of the Indians, and if need were, to Fort Providence. This was but poor comfort for the famished travellers, who were obliged to take up their quarters in the dilapidated edifice. The rubbish-heaps concealed beneath the snow were searched for old skins, bones, or any kind of offal that might serve as food when stewed with rock-tripe. A good fire was a luxury seldom enjoyed, for they had scarcely strength to collect wood. Eighteen weary days were passed in these painful privations, when the monotony was interrupted by the arrival of Dr Richardson and Hepburn in a most emaciated condition, bringing the melancholy intelligence that Mr Hood and the Iroquois were both dead. Michel, in a fit of sullen spite, to which uncivilised natures are liable, had shot the young and talented officer at the encampment where they had last parted; and his demeanour towards the two survivors becoming more and more threatening, the doctor, under the imperious instinct of self-preservation, took upon himself the responsibility of putting the Indian to death by a pistol-shot. As afterwards appeared, there was reason to believe that two of the missing voyageurs had also been murdered by the Iroquois.

Two others of the wretched party died on the second day after Richardson's arrival at the fort. At last, on the 7th November, relief came, borne by three Indians sent by Mr Back. The messengers proved themselves most kind, assiduous attendants, 'evincing humanity that would have done honour to the most civilised people.' And with good fires and sufficient food, the sufferers began to recover strength. A week later, they were able to set out for Fort Chipewyan, where they remained until June of the following year. In July they reached York Factory, from whence they had started three years before, and thus terminated a journey of 5550 miles, during which human courage and patience were exposed to trials such as few can bear with fortitude, unless, as is seen in Franklin's interesting narrative, arising out of reliance on the ever sustaining care of an Almighty Providence.

The possibility of entering the Polar Sea having been proved by Parry's first voyage, it was considered that the north-west passage might probably be effected in a lower latitude than that of Melville Island, where the icy barrier had proved impassable. Parry, accordingly, was sent out a second time with the *Hecla* and *Fury*, in May 1821, with instructions to make for Repulse Bay by way of Hudson's Strait. The former never having been fully examined, it was supposed that some opening would be found leading from it to the ocean beyond. Hudson's Strait is notorious for its manifold hindrances to navigation, and the 2d August had come before the ships reached the narrow channel between Southampton Island and the mainland, named Frozen Strait by Middleton, who was baffled by

it in 1742. At the end of August the vessels were in Repulse Bay, which, owing to some physical cause not easy of explanation, but which not unfrequently operates in the Arctic Seas, was almost clear of ice. Boat parties were immediately set to explore the shores, and the result of their labours proved the entire continuity of land round the bay, and consequently the non-existence of any passage to the western waters. Every opening in the coast towards the south-east was then diligently examined, in which service the ships were beset by floating ice, and in a few days drifted back the whole distance gained by a month's hazardous sailing. The season for exploration was now over; a secure anchorage was found off Winter Island, where the winter was passed similarly to that described in the former voyage, but with less tedium; for a party of sixty Esquimaux—men, women, and children, with dogs and sledges—took up their residence on the island early in 1822, and afforded continual interest to the voyagers in studying their habits, manners, resources, and their adaptation to surrounding nature. Even under such apparently uncongenial circumstances human ingenuity manifests itself: these people build their winter huts dome-shaped, with blocks of snow, as accurately as though they had studied the geometrical principles of such constructions. They display great skill also in fitting and sewing their dresses, and in the manufacture of canoes, weapons, and domestic implements. They eat little else than animal food, and whenever they can get it, will devour from ten to twelve pounds of flesh or blubber in a day. Their only domestic animal is the dog: deprived of this useful creature, their existence would be extremely precarious. On the long journeys which they take in search of food, six of these dogs will draw a sledge with a load of half a ton from seven to eight miles an hour during a whole day.

On the 2d July the ships were released from their frozen berths, and attempts made to sail to the northwards by Fox's Channel—a most harassing tideway, where more than once both ships were nearly destroyed by pressure from floating ice: so formidable were the obstacles, that sixty-five days were spent in making forty miles! The elements proved unpropitious, and at the end of October the vessels were once more in winter quarters at the Island of Igloodik; thirteen days' work having been necessary to cut a canal 43½ feet long through ice from twelve to fourteen inches, and in some places several feet, in thickness. Here the Esquimaux were more numerous than at Winter Island.

Not until August 8, 1823, could the ships be extricated from this new station; and no sooner were they freed, than they were again beset by drifting ice, which held them for twenty-four days. The risk of passing another winter in those dreary regions appeared to be imminent, when an easterly breeze sprung up, and carried the vessels into open water. They arrived at Shetland in October, after nearly three years' absence, and the eyes of all on board were gladdened once more with the sight of civilised humanity. The north-eastern point of the American continent was ascertained by this voyage: it is a projecting headland of Melville Peninsula, and the connection of the latter with the main was found to be by a tortuous and narrow isthmus; and with respect to a navigable passage to the Polar Sea, it proved that the only route to the westward lay through Barrow's Strait or Regent's Inlet.

A third expedition, including the same ships with the same commander, was sent out in 1824. Owing to the unfavourable nature of the middle ice in Baffin's Bay, the season was so far advanced by the time the party entered Regent's Inlet, that they at once went into winter quarters at Port Bowen, on its eastern shore. Here they remained until the 20th July 1825, when the voyage was resumed, but under very discouraging circumstances. Great accumulations of ice rendered it almost impossible to advance; the *Fury* was driven on shore, and abandoned, though most of her stores were saved, and piled on the beach; and the *Herla* returned to England with a double complement of men and officers. This was the least successful of Parry's voyages; but there is a fact connected with it which deserves to be recorded: it proved that the anxiety and difficulty, consequent on the loss of power in the compasses need no longer exist. The placing of a small circular plate of iron in the line of no direction of the ship, and near to the needle, effects a compensation which keeps the latter in working condition. This contrivance is due to Mr Peter Barlow of Woolwich, and Captain Parry says, 'Never had an invention a more complete and satisfactory triumph; for to the last moment of our operations at sea did the compass indicate the true magnetic direction.'

Concurrently with Parry's third voyage three other expeditions were undertaken: the first by Captain Lyon, in the *Griper*, to proceed by Hudson's Strait and Sir Thomas Rowe's Welcome to Repulse Bay; then to cross over Melville Isthmus, and survey the coast of America as far as where Franklin left off at Point Turnagain. The vessel sailed in June 1824, but being totally unfit for the service, except in the quality of strength, she was nearly wrecked on two occasions in the Welcome, and all on board placed in imminent peril of their lives; and at last, Repulse Bay being eighty miles distant, the enterprise was abandoned.

These expeditions had the twofold object of making the north-west passage and of completing the survey of the North-American coast. Captain Beechey was appointed to command the second, and despatched in the *Blossom*, in 1825, on a similar errand to that now intrusted to Captain Collinson with the *Enterprise* and *Investigator*; namely, to sail round Cape Horn, and enter the Polar Sea by Behring's Strait, so as to arrive at Chamisso Island, in Kotzebue Sound, by the 10th July 1826, there to wait for Franklin, of whom more presently. Beechey reached the rendezvous fifteen days after the time appointed, and made immediate preparations for exploring the coast to the eastward. The barge, under charge of two of the lieutenants, surveyed 126 miles of new shore, until stopped by a long, low, projecting tongue of land, to which the name of Point Barrow was given, but without meeting or hearing any tidings of the expected overland party. The *Blossom* remained at the anchorage until October, when it became necessary to depart, to prevent her being frozen in for the winter, and after a cruise in the Pacific, she returned to Chamisso Island in August 1827. Climate, however, with its usual fickleness, was unfavourable; there was very little open sea; and in endeavouring to push along the shore, the barge was wrecked, and several of her crew drowned; and on the 6th October Captain Beechey was obliged to abandon further exploration, grieved and disappointed that he had not the satisfaction of bearing with him the adventurous party whom he had been sent especially to meet.

This party comprised the third of the expeditions referred to above. In 1824, Franklin, undeterred by the recollection of the fearful hardships endured in his former overland journey, proposed a second, which, descending the Mackenzie River to the sea, should there divide its force; and while one party explored the coast easterly to the Coppermine, the other should make its way westerly to Icy Cape, or, if possible, Behring's Strait. The project was duly sanctioned, and every preparation made to insure success by building boats, providing scientific instruments, and supplying abundant provisions. Besides three strong and light boats built at Woolwich, better suited to navigation among ice than bark canoes, a smaller one, covered with Mackintosh, and weighing only eighty-five pounds, was constructed for the purpose of crossing rivers. In July 1825 the party arrived at Fort Chipewyan, when a combined plan of operations was determined on, in which Richardson and Back, who had again volunteered, held a prominent place. To the latter, and to Mr Dease, one of the Hudson's Bay Company's traders, was intrusted the preparation of winter quarters, so as to avoid all risk of once more encountering the privations they had before so painfully experienced.

In June 1826 they descended the river, and separated on approaching the sea—Richardson and Kendal going with two boats to the east, and Franklin and Back with two boats to the west, in which direction they hoped eventually to effect a junction with Beechey and the *Blossom*. On the 4th July Franklin's division was attacked by some hundreds of Esquimaux, and only saved by the coolness and judgment of the leaders. Pursuing their voyage, the usual fate of arctic voyagers awaited them—storms, fogs, cold, and ice. The greatest retardation was from the extreme density of the fogs, caused by the low and swampy nature of the coast, into which the most northerly range of the Rocky Mountains sinks. The season was advancing; and after anxious deliberation as to pushing on or returning, the latter course was decided on. The spot was named Return Reef; and on the 18th August the party turned their backs on it, little thinking that Captain Beechey had done so much towards meeting them. On this event Franklin observes:—'Could I have known, or by possibility imagined, that a party from the *Blossom* had been at the distance of only 160 miles from me, no difficulties, dangers, or discouraging circumstances should have prevailed on me to return; but taking into account the uncertainty of all voyages in a sea obstructed by ice, I had no right to expect that the *Blossom* had advanced beyond Kotzebue Inlet, or that any party from her had doubled Icy Cape.' The extent of coast surveyed was 374 miles, the whole of the tamest and most dreary character. The boats got back to Fort Franklin the 21st September, after a voyage of 2048 miles; and there the unsuccessful party met their comrades who had gone eastwards. These had been favoured with fine weather, and their sail of 500 miles, or 902 by the coast line, from one river to the other, afforded a pleasant voyage, during which they added somewhat to the stores of natural history, botany, geology, &c.

A second winter passed at the fort. The cold was intense, at one time the thermometer standing at 58° below zero; but such a temperature even as this may be defied with a weather-tight dwelling, plenty of provisions, and congenial companions. A series of magnetic observations was com-

menaced; and as the locality lay on the opposite side of the magnetic pole to that along which Parry had sailed in his voyages, some interesting results were arrived at. 'It appears,' says Franklin, 'that for the same months, at the interval of only one year, Captain Parry and myself were making hourly observations on two needles, the north ends of which pointed almost directly towards each other, though our actual distance did not exceed 855 geographical miles; and while the needle of Port Bowen was increasing its westerly direction, ours was increasing its easterly, and the contrary variation being west at Port Bowen, and east at Fort Franklin—a beautiful and satisfactory proof of the solar influence on the daily variation.'

In addition to magnetical observations of the aurora borealis were also recorded, and the fact established that no disturbance of the needle (in that locality at least) takes place during the play of the phenomenon. A course of lectures too on practical geology was delivered by Richardson—an eminently useful subject in a new district. And as an instance of what a love for science may accomplish when animated by a persevering and self-reliant spirit, we must not omit to mention Mr Drummond, one of the party, who passed the winter alone at the foot of the Rocky Mountains in a small hut erected by himself, where he collected 1500 specimens of plants, and 200 birds and quadrupeds, besides insects. These, though points of minor interest when compared with the grand objects of the expeditions, serve nevertheless to connect the individuals whose names they distinguish, by many links of sympathy and esteem, with unobtrusive thousands who can admire where they cannot imitate.

The plan which had been proposed by Franklin for reaching the North Pole on the failure of Captain Buchan in 1818 was taken up by Sir Edward Parry after returning from his third voyage; and in April 1827 he sailed for Spitzbergen in the *Hcla*, calling by the way at Hammerfest, to take on board a number of reindeer which were to be employed in drawing the two boats built expressly for the service, and fitted with sledge-runners. Arrived at their destination, the vessel was anchored in a harbour on the northern coast, while Parry, with Lieutenants Ross and Bird, Beverly the surgeon, and twenty-four men, started on their novel enterprise. The central point to which their hopes and wishes tended was 600 miles distant; and to quote the commander's words—'It was proposed to take with us resources for ninety days: to set out from Spitzbergen, if possible, about the beginning of June; and to occupy the months of June, July, and August in attempting to reach the pole, and returning to the ship, making an average of 13½ miles per day.' Each boat, with the contents, weighed 3573 lbs., or 268 lbs. to each man. Among the stores was a good supply of that prime essential in Arctic travelling, pemmican, which combines abundant nutriment with small compass. It is made from beef dried over wood fires, and pounded, and preserved in bags, with fat to exclude the air.

On the 13th June the party were off Little Table Island, discovered by Pripps in 1773. It is the most northerly land on the globe at present known, and though but little more than a rock a few hundred feet high, its position is such that, as Parry observes, 'bleak, barren, and rugged as it is, one could not help gazing at it with intense interest.'

In 1806 Captain Scoresby had sailed as high as 81° 30', and reported

the ice then stretching to the northwards as a smooth unbroken level, a description which unfortunately would no longer apply in 1827. Where the water was open, the crews availed themselves of sails and oars; but when they came to the ice, the dragging of the boats proved to be a more formidable task than was anticipated. The reindeer had been left behind at Spitzbergen as useless under the circumstances, since there could be no provender for them, and the labour of moving the heavy loads was fatiguing in the extreme. A level surface was rarely met with: the ice was nearly everywhere ridged with hummocks, furrowed with deep hollows full of loose snow or water, or broken up into sharp lunine, familiarly termed 'penknife ice' by the sailors.

Although the season of the arctic summer, when there is constant sunlight, the temperature was seldom above the freezing-point. All vicissitudes of weather were to be encountered: one day it rained steadily for twenty-one hours without any of that shelter which the land at times affords. The night was chosen for travelling, the glare from the expanse of snow being less painful to the eyes than when the sun was higher, besides which, the day was the best time for drying wet garments. This arrangement proved rather embarrassing; the men scarcely ever knew night from day, and the officers, even with chronometers, would have been sometimes puzzled to tell the hour, had they not been provided with time-keepers constructed to show twenty-four hours on the dial, with but one revolution of the hour-hand in that period. Had they reached the pole, where the sun's apparent height varies very slightly, they would have been unable to retrace their steps without this provision, and might have gone off on a meridian precisely opposite to the true one.

Their labours thus commenced with the evening:—'Being rigged for travelling,' observes Parry, 'we breakfasted upon warm cocoa and biscuit; and after stowing the things in the boats and on the sledges, so as to secure them as much as possible from wet, we set off on our day's journey, and usually travelled from five to five and a-half hours, then stopped an hour to dine, and again travelled four, five, or even six hours, according to circumstances. After this we halted for the night, as we called it, though it was usually early in the morning, selecting the largest surface of ice we happened to be near for hauling the boats on, in order to avoid the danger of its breaking up by coming in contact with other masses, and also to prevent drift as much as possible. The boats were placed close alongside each other, with their sterns to the wind, the snow or wet cleared out of them, and the sails, supported by the bamboo masts and three paddles, placed over them as awnings, an entrance being left at the bow. Every man then immediately put on dry stockings and fur boots, after which we set about the necessary repairs of boats, sledges, or clothes; and after serving the provisions for the succeeding day, we went to supper. Most of the officers and men then smoked their pipes, which served to dry the boats and awnings very much, and usually raised the temperature of our lodgings 10° or 15°. This part of the twenty-four hours was often a time—and the only one—of real enjoyment to us: the men told their stories, and "fought all their battles o'er again;" and the labours of the day, unsuccessful as they too often were, were forgotten. A regular watch was set during our resting-time, to look out for bears or for the ice breaking up

around us, as well as to attend to the drying of the clothes, each man alternately taking this duty for one hour. We then concluded our day with prayers; and having put on our fur dresses, lay down to sleep with a degree of comfort which perhaps few persons would imagine possible under such circumstances; our chief inconvenience being, that we were somewhat pinched for room, and therefore obliged to stow rather closer than was quite agreeable. The temperature, while we slept, was usually from 36° to 45° , according to the state of the external atmosphere; but on one or two occasions it rose as high as 60° to 66° , obliging us to throw off a part of our fur dress. After we had slept seven hours, the man appointed to boil the cocoa roused us, when it was ready, by the sound of a bugle, when we commenced our day in the manner before described.

Our fuel consisted entirely of spirits of wine, of which two pints formed our daily allowance, the cocoa being cooked in an iron boiler over a shallow iron lamp with seven wicks—a simple apparatus, which answered our purpose remarkably well. We usually found one pint of the spirits of wine sufficient for preparing our breakfast—that is, for heating twenty-eight pints of water, though it always commenced from the temperature of 32° . If the weather was calm and fair, this quantity of fuel brought it to the boiling-point in about an hour and a-quarter; but more generally the wicks began to go out before it had reached 200° . This, however, made a very comfortable meal to persons situated as we were. Such, with very little variation, was our regular routine during the whole of this excursion.

Arctic land presents no very inviting prospect, but the frozen surface of an arctic sea is drearier still. While Parry and Ross marched on ahead of the boats to beat a track, the most insignificant objects became a source of intense interest and curiosity. One warm day two flies on the ice were regarded with a degree of attention that would have been ludicrous under other circumstances; and equally important was the sight of an *aphis borealis* in a languid state a hundred miles away from land. Such, with the varying nature of the ice, and efforts consequent thereon, and changes of the weather, were the only incidents to relieve the monotony of daily toil. Rain is not frequent in the north, but during this journey it rained more than in the whole of seven previous summers in a lower latitude. All these facts have to be taken into consideration in order to form an accurate idea of the obstacles to be overcome in arctic travel; and it is satisfactory to observe that, notwithstanding these, the promotion of science has not been lost sight of by the explorers. On the 17th July Parry and his officers took hourly observations on all natural phenomena observable by means of the instruments in their possession, in accordance with an arrangement proposed by the Royal Society of Edinburgh for simultaneous hourly observations throughout that day.

The conviction soon forced itself on the minds of the principals, that reaching the pole over such ice as daily impeded them was out of the question. Sometimes they gained no more than fifty yards in two hours; once, after eleven hours of hard work, the advance made was only two miles. The difficulty was further increased by a current setting to the southward, by which they lost more ground than they gained. After a day's severe labour in dragging the boats for twelve miles, they were but five miles nearer to the pole than when they started in the morning; on

another occasion they lost thirteen miles in twenty-four hours, the southerly drift running at times five miles an hour. Defeated in their main object, the latitude of 83° became the assigned goal; yet even in this they were disappointed, and after struggling for thirty-five days against multiplied difficulties, they were compelled to give up in latitude $82^{\circ} 45'$, with the sole satisfaction that in all human probability no adventurers had ever before penetrated so far. This was on the 23d July, 172 miles from the ship.

'To accomplish this distance,' writes Parry, 'we had traversed, by our reckoning, 292 miles, of which about 100 were performed by water, previously to our entering the ice. As we travelled by far the greater part of our distance on the ice three, and not unfrequently five times over, we may safely multiply the length of the road by two and a-half; so that our whole distance, on a very moderate calculation, amounted to 580 geographical, or 668 statute miles, being nearly sufficient to have reached the pole in a direct line.' Soundings had been taken more than once during the journey, and depths obtained varying from 200 to 400 fathoms; here, at the ultimate haltingplace, no bottom was found with 500 fathoms of line. The party were again in the open sea on the 11th August, at fifty miles distance from Table Island, after forty-eight days on the ice; and ten days later, they arrived on board the *Zecla*, having been absent nine weeks, and travelled in the whole more than 1100 miles.

Next in chronological order is the expedition equipped at the cost of Sir Felix Booth, and conducted by Captain Ross, and his nephew, Commander (now Sir James) Ross. They sailed in May 1829, in the *Victory*, a vessel fitted with a steam engine in addition to her sails, so as to be able to navigate in calm weather or in baffling winds. The object of the voyage was to search for the north-west passage, as Parry had done before, by some opening leading out of Regent's Inlet: they arrived in this inlet in August, and took on board a large quantity of the *Fury's* stores, which had been piled on the beach when that vessel was cast away: of the ship herself not a vestige remained. They then sailed for two hundred miles along the east and south-east coast of the land, called North Somerset by Parry, and named Boothia by Ross, in honour of his patron, and wintered in Felix Harbour, from which the *Victory* was not liberated for a whole year. The narrative of this voyage, indeed, affords little more than a continued succession of difficulties and disasters: the steam-engine was thrown overboard as a useless encumbrance; the ship was either firmly beset, or unable to make her way among the ice when at liberty, and was at last abandoned, leaving the party with no resource but the boats and the *Fury's* stores: without the latter they must have been starved to death. Two dreary winters did they pass on the beach where these stores had been piled, in a building to which they gave the name of Somerset House. In April 1833 they began to carry provisions by toilsome journeys, and make deposits at various places along the coast in the direction of their route. Not until the 14th August of this year did the ice open to afford them a path of escape from their miserable imprisonment—miserable, although there was no want of food. Happily they at length made their way to Barrow's Strait, where they were taken up by a whale ship, and brought to England.

One interesting fact brought to light by this voyage affords some relief to its long and barren series of disasters—the discovery of the north mag-

netic pole; the situation of which on the land of Boothia is marked on the map. It was made by Commander James Ross on one of his exploring excursions. 'The place of the observatory,' he remarks, 'was as near to the magnetic pole as the limited means which I possessed enabled me to determine. The amount of the dip, as indicated by my dipping-needle, was $89^{\circ} 59'$, being thus within one minute of the vertical; while the proximity at least of this pole, if not its actual existence where we stood, was further confirmed by the action, or rather by the total inaction, of the several horizontal needles then in my possession.' This was very nearly the position assigned to it by scientific men several years earlier, and arrived at by protracting the direction lines of compass needles in various circumjacent latitudes, till they met in a central point. Parry's observations placed it eleven minutes distant only from the site determined by Ross.

'As soon,' says the latter, 'as I had satisfied my own mind on the subject, I made known to the party this gratifying result of all our joint labours; and it was then that, amidst mutual congratulations, we fixed the British flag on the spot, and took possession of the North Magnetic Pole and its adjoining territory in the name of Great Britain and King William IV. We had abundance of materials for building in the fragments of limestone that covered the beach, and we therefore erected a cairn of some magnitude, under which we buried a canister containing a record of the interesting fact, only regretting that we had not the means of constructing a pyramid of more importance, and of strength sufficient to withstand the assaults of time and of the Esquimaux. Had it been a pyramid as large as that of Cheops, I am not quite sure that it would have done more than satisfy our ambition under the feelings of that exciting day. The latitude of this spot is $70^{\circ} 5' 17''$, and its longitude $96^{\circ} 46' 45''$ west.'

Even if the pole were stationary, this determination could only be regarded as approximate; but when we know that the centre of magnetic intensity is a movable point, we shall readily understand that the cairn erected with so much enthusiasm can now only show where it *was*. According to Hansteen, the pole moves $11' 4''$ every year, and revolves within the frigid zone in 1890 years, so that it will not reach the same spot in Boothia until the year 3722! The precise determination of this point, however, is said to be comparatively unimportant, because its position can always be ascertained by observations of the compass and dipping-needles.

Ross's protracted stay of four years in the inhospitable north induced the government to send out an expedition to look for the absent party. Back, who was then in Italy, hurried home to volunteer his services: his offer was accepted; and with Dr King, surgeon and naturalist, he left England in February 1833. At the Hudson's Bay Company's post, Norway House, the usual complement of voyageurs and other attendants awaited them; and in high spirits they started for their winter quarters, on the eastern shore of Great Slave Lake. While a dwelling was being erected, the commander took a trip to Lake Aylmer, out of which flows a stream now known as Back's River, down which he hoped to pass the following year to the sea.

In April 1834 news reached them of the return of Ross and his crew to England—a fact which animated them with greater spirit for new discoveries. In June they descended the river—a hazardous feat, as will be

conceived from Back's description of the stream on arriving at the sea on the 29th July:—'This, then, may be considered as the mouth of the Thlew-ee-choh, which, after a violent and tortuous course of 530 geographical miles, running through an iron-ribbed country without a single tree on the whole line of its banks, expanding into fine large lakes with clear horizons, most embarrassing to the navigator, and broken into falls, cascades, and rapids, to the number of no less than eighty-three in the whole, pours its waters into the Polar Sea in latitude $67^{\circ} 11'$ north, and longitude $94^{\circ} 30'$ west—that is to say, about thirty-seven miles more south than the mouth of the Coppermine River.'

Foul weather prevented the exploration of the coast to Point Turnagain, as had been intended: the utmost that could be done was to send out a walking party, who, after toiling through swamps for fifteen miles, turned back at a low tongue of land named Point Ogle. Nothing but moss and fern grew on the desolate shores: there was no drift-wood; and so damp was the weather, that for ten days, while encamped on Montreal Island, they could not light a spark of fire, or obtain a warm meal. Under these adverse circumstances, after naming the prominent points and islands of the estuary in which they had found so little to cheer them, and taking possession of the country in the name of William IV., they made their way to Fort Reliance—their winter quarters on Slave Lake—and in the following year returned to England.

This was not the last of Back's labours. In 1836, at the instance of the Geographical Society, he attempted to reach Wager Inlet, Repulse Bay, in the *Terror*, as Captain Lyon had so unsuccessfully endeavoured to do twelve years earlier, and for a similar object—the exploration of the shores of Regent's Inlet and of the American continent. The ship sailed in June; in September she was beset by ice in Fox Channel, near Cape Comfort, and there held in its frozen grasp until the 14th July of the following year. It was as though an animated spirit opposed the progress of the party, and determined to punish their daring. The stout ship was at times heeled over almost on her broadside by toppling ice; at others lifted for weeks together on the top of upheaving masses, or compressed between encroaching floes. Human skill was powerless in circumstances which so formidably tasked human courage and fortitude. These qualities were happily not lacking; and indeed without them, the discomfited band of explorers would never have survived to bring their crippled ship back to England.

In 1836 the Hudson's Bay Company resolved on completing, if possible, the survey of those portions of the northern coast which Franklin and Back had failed to reach. This service was intrusted to Messrs Dease and Simpson, two of their employées, with a party of twelve men, who were instructed to descend the Mackenzie River, and on arriving at the sea, endeavour to follow the coast to the westward, either by land or water, as weather and other circumstances permitted, to the point at which Beechey turned back. They were afterwards to explore to the eastward from Point Turnagain of Franklin; to determine whether Boothia Felix were a peninsula, as Ross supposed, or an island; and then to push on in the same direction to some known point which had been visited by Back. In July 1837 they had reached Return Reef, where Franklin was stopped. Beyond this all was new. Two large rivers were dis-

covered, the Garry and Colville, the latter more than a thousand miles in length. Although in the middle of the dogdays, the ground was frozen so hard at four inches beneath the surface, that they could scarcely drive in their tent-pegs. So keen was the north-easterly wind, that 'the spray froze on the oars and rigging; and out in the bay the ice lay smooth and solid, as in the depth of a sunless winter.' Yet even here a few flowers cheered the eyes of the travellers, and enlivened the stubborn soil. On the 1st August, further progress by water being impracticable—they had gained but four miles on the four previous days—Mr Simpson, with some of the men, continued the journey on foot, while Mr Dease and the others remained in charge of the boats. 'The walking party, after two or three days' travel, fell in with a number of Esquimaux, from whom they hired an oomiak, or family canoe, in which to pursue the voyage along the lanes of open water occasionally visible close to the beach. On the 4th, after passing the mouth of a large, deep river, 'I saw,' says Mr Simpson, 'with indescribable emotions Point Barrow stretching out to the northward, and enclosing Elson Bay, near the bottom of which we now were.' This, it will be remembered, was the farthest point attained by the *Blossom's* barge in 1826, an exploit commemorated by naming the bay after Lieutenant Elson, one of the officers in command.

The party returned to the winter station on Great Bear Lake, and while there, received instructions to renew their search to the eastward, and were informed of Sir G. Back's expedition, with which they were if possible to communicate. They were descending the Coppermine in June 1838 in pursuance of these instructions, when the stream was swollen by spring floods, and encumbered with floating ice, and, in shooting the numerous rapids, 'had to pull for their lives, to keep out of the suction of the precipices, along whose base the breakers raged and foamed with overwhelming fury. Shortly before noon, we came in sight of Escape Rapid of Franklin; and a glance at the overhanging cliffs told us that there was no alternative but to run down with full cargo. In an instant,' continues Mr Simpson, 'we were in the vortex; and before we were aware, my boat was borne towards an isolated rock, which the boiling surge almost concealed. To clear it on the outside was no longer possible; our only chance of safety was to run between it and the lofty eastern cliff. The word was passed, and every breath was hushed. A stream which dashed down upon us over the brow of the precipice more than 100 feet in height, mingled with the spray that whirled upwards from the rapid, forming a terrific shower-bath. The pass was about eight feet wide, and the error of a single foot on either side would have been instant destruction. As, guided by Sinclair's consummate skill, the boat shot safely through those jaws of death, an involuntary cheer arose. Our next impulse was to turn round to view the fate of our comrades behind. They had profited by the peril we incurred, and kept without the treacherous rock in time.'

They had navigated but a short distance along the coast when they were stopped by ice, and lingered many days at Boathaven in a state of utter hopelessness. The time for returning had arrived ere any real work had been accomplished. At length, on the 20th August, Mr Simpson started with seven men for a ten days' walk to the eastward, on the first of which they passed Point Turnagain, the limit of Franklin's survey in 1821. By

the 23d they had toiled onwards to an elevated cape, rising from a sea beset with ice, and the land closing all round to the northwards: further progress seemed to be impossible. 'With bitter disappointment,' writes Mr Simpson, 'I ascended the height, from whence a vast and splendid prospect burst suddenly upon me. The sea, as if transformed by enchantment, rolled its free waves at my feet, and beyond the reach of vision to the eastward. Islands of various shape and size overspread its surface; and the northern land terminated to the eye in a bold and lofty cape, bearing east-north-east, thirty or forty miles distant, while the continental coast trended away south-east. I stood; in fact, on a remarkable headland, at the eastern outlet of an ice-obstructed strait. On the extensive land to the northward I bestowed the name of our most gracious sovereign Queen Victoria. Its eastern visible extremity I called Cape Pelly, in compliment to the governor of the Hudson's Bay Company.' This was one of the rewards which compensate the adventurous explorer for seasons of peril and privation.

In 1839 they were more successful, and, favoured with mild weather and an open sea, they sailed through the narrow strait that separates Victoria Land from the main. On the 13th August they doubled Point Ogle, the farthest point of Back's journey in 1834; an event which terminated the long-pursued inquiry concerning the coast-line of the American continent. The survey was now complete. A day or two later, the party, with flags flying, crossed to Montreal Island in Back's Estuary, where they discovered a deposit of provisions which Captain Back had left there five years previously. The pemmican was unfit for use; but out of several pounds of chocolate, half decayed, the men contrived to pick sufficient to make a kettleful of acceptable drink in honour of the occasion. There were also a tin case and a few fish-hooks, of which, observes Mr Simpson, 'Mr Dease and I took possession, as memorials of our having breakfasted on the identical spot where the tent of our gallant, though less successful, precursor stood that very day five years before.'

'They had now obeyed their instructions to the letter; the coast-line was determined, and connected with what was previously known to the eastward. It was time to think of returning, but a desire to ascertain if Boothia Felix might not form part of the continent on the opposite side of the estuary led them onwards. By the 20th August they had sailed far enough to see the farther shore, with its capes, of the Gulf of Boothia, which runs down to within forty miles of Repulse Bay; and they then turned back. On their return, they traced sixty miles of the south coast of Boothia, where at one time they were not more than ninety miles from the site of the magnetic pole as determined by Sir James Ross. A long extent of Victoria Land was also examined; and on the 16th September they once more happily entered the Coppermine, after a boat voyage of more than 1600 miles, the longest ever performed in the Polar Sea.

Hitherto we have been occupied with the explorations on and around Northern America, and we now come to the history of those along the continent of Asia, the northern limit of which extends over a space of 145° of longitude. The discovery and survey of this vast region is due entirely to the Russians; for although other nations have attempted the passage, they penetrated no farther than the Karskoie Sea on the west, and Cape North

on the east. The first knowledge of the countries which here bound the polar basin was, as in the case of the other continent, derived from private adventurers, who undertook journeys into those desolate latitudes in hopes of a profitable trade in furs, skins, and ivory. Russian traders, sailing from the White Sea and mouth of the Petchora, voyaged as far as Obi and the Iennissei; their vessels, similar to those of early British navigators, were little better than shallops, and it is impossible not to be struck with the labours of those whose chief resource was indomitable perseverance.

The first endeavours under government authority were made about the year 1600; and trading stations were established at the mouths of most of the larger rivers, with the double view of exploration and of subjecting the natives to Russian authority. The Lena, Iana, Indigirka, Alascia, and Kolyma, were discovered before 1610, by parties sent under Cossack leaders to collect tribute, who at the same time fell in with the Tchuktches, and heard their reports of islands lying off the coast. The earliest attempt to sail to eastward of the Kolyma was made in 1646, and repeated in the two following years, with several small vessels, all of which were wrecked except one commanded by Deshneff, a government functionary, whose name stands high among the early explorers. His grand object was to get round to the mouth of the Anadyr, on the eastern coast, to trade for sable skins; and the summer of 1648 proving favourable to navigation among the ice, he sailed along the shore and through the strait explored by Behring nearly a century later, and founded a settlement at the place to which he was bound—the Anadyr River. This is the only occasion on which such a voyage has been made; and to Deshneff and his companions belongs the honour of having been the first and sole navigators from the Arctic Sea to the Pacific, and of having proved, at a period much earlier than is commonly supposed, that the American and Asiatic continents are not united.

Other expeditions followed; the Bear Islands were seen; and to obtain accurate particulars concerning them, the government of Siberia sent out two parties in 1711, who crossed the ice to the Likahoff Islands, and saw others yet farther to the north. On their return to the mainland, the leaders were murdered by the crews, who feared the hardships of further explorations. Thus the work went on with varying fortune, the positions mostly ill-defined, as must be the case in the absence of accurate instruments, until 1734, the reign of the Empress Anne, when the Russian Admiralty fitted out three expeditions 'to obtain a correct knowledge of the northern coast of Siberia from the White Sea to Behring's Strait:—' one, consisting of two vessels, was to sail from Archangel eastward to the mouth of the Obi; another from the Obi to the Iennissei. The third was to sail from the Lena, and consisted of two vessels, one of which was to sail westward to the Iennissei, and the other eastward, past the Kolyma, to Behring's Strait.'

Insurmountable impediments to navigation, recall of commanders, wintering in the rivers, overland journeys to St Petersburg, renewed attempts, scurvy, and shipwreck, compose the history of these expeditions. One of the mates, in observations on the compass, makes the remark, 'The variation of the needle was so great, and it was so unsteady, that I am inclined to believe the magnet ceases to act in these high latitudes.' This fact is worthy of record, as bearing on phenomena which have subsequently been regarded with much attention. But, on the main question: the Russian

Admiralty refused to receive the reports of impossible navigation; and, in 1739, sent out another expedition under Lieutenant Lapteff, who, by dint of perseverance in four successive voyages, did at last pass to the eastward of the Kolyma; but here fields of ice extending far to the north, barred his further progress.

Next in order come the voyages by Behring. This mariner, a Dane by birth, was first employed in explorations by the Czar Peter. It was in 1741 that he sailed through the strait which has since borne his name, to examine the coast of Kamtchatka, which was then supposed to stretch away to the south, and join Japan. After being forty-four days at sea, he was wrecked on a small island, where he died in great misery, and but a small number of his crew survived to return to the mainland and tell the story of his fate. Schalaroff, a merchant of Yakutsk, was equally unfortunate. In 1760 this adventurer, whose name is venerated throughout Siberia, determined on trying whether the passage could or could not be accomplished. He persevered during three seasons, in defiance of mutiny and hardships innumerable. He, too, was wrecked on the desolate coast seventy miles east of Cape Chelagskoi, and, with all his crew, died of starvation. Three years later, Sergeant Andrejeff conducted a sledge expedition across the ice to the Bear Islands; his reports, which were much exaggerated, led shortly afterwards to the accurate survey of this and the adjacent country. Cook's exploration, which has been before referred to, produced another expedition on the part of the Russians, which sailed from the Kolyma in 1787 under Captain Billings; but the attempts made to navigate either to the east or the west were both defeated. Further efforts were made at intervals during the first quarter of the present century, some of them mainly to search for the northern continent, whose existence, far in the Polar Sea, had so often been the subject of rumour. And last we come to the expeditions commanded by Lieutenant Anjou and Admiral von Wrangell, carried on also by means of dogs and sledges from the year 1820 to 1823; the latter taking the mouth of the Kolyma for his starting-point—the former the river Iana. These undertakings were especially promoted by the Emperor Alexander, and were conducted with all the care and skill warranted by an advanced state of science and philosophy. They failed but in one particular—the discovery of the northern continent. How diligently and perseveringly this was searched for, is best proved by the narrative of perils endured, even to the risk of life, in the arduous enterprise. Three times was the frozen surface of the sea traversed without leading to any definite result; on the fourth journey, in March 1823, Von Wrangell reached the latitude of 70° 51', longitude 175° 27' west—105 wersts in a direct line from the mainland. Soundings gave a depth of 22½ fathoms; the ice here was thin and weak. More than once the party had only been saved from breaking through by the speed at which the dogs travelled over it. In the distance a screen of dense blue vapour—a certain indication of open water—was visible, on which the admiral remarks:—

‘Notwithstanding this sure token of the impossibility of proceeding much farther, we continued to go due north for about nine wersts, when we arrived at the edge of an immense break in the ice, extending east and west farther than the eye could reach, and which at the narrowest part

was more than a hundred and fifty fathoms across. . . . We climbed one of the loftiest ice-hills, when we obtained an extensive view towards the north, and whence we beheld the wide immeasurable ocean spread before our gaze. It was a fearful and magnificent, but to us a melancholy spectacle. Fragments of ice of enormous size floated on the surface of the agitated ocean, and were thrown by the waves with awful violence against the edge of the ice-field on the farther side of the channel before us. The collisions were so tremendous, that large masses were every instant broken away; and it was evident that the portion of ice which still divided the channel from the open ocean would soon be completely destroyed. Had we attempted to have ferried ourselves across upon one of the floating pieces of ice, we should not have found firm footing upon our arrival. Even on our own side, fresh lanes of water were continually forming, and extending in every direction in the field of ice behind us. With a painful feeling of the impossibility of overcoming the obstacles which nature opposed to us, our last hope vanished of discovering the land, which we yet believed to exist. We saw ourselves compelled to renounce the object for which we had striven through three years of hardships, toil, and danger. We had done what duty and honour demanded: further attempts would have been absolutely hopeless, and I decided to return.'

On returning from this extreme limit of their adventurous journey, the party were placed in a situation of extreme risk. 'We had hardly proceeded one verst,' writes M. von Wrangell, 'when we found ourselves in a fresh labyrinth of lanes of water, which hemmed us in on every side. As all the floating pieces around us were smaller than the one on which we stood, which was seventy-five fathoms across, and as we saw many certain indications of an approaching storm, I thought it better to remain on the larger mass, which offered us somewhat more security; and thus we waited quietly whatever Providence should decree. Dark clouds now rose from the west, and the whole atmosphere became filled with a damp vapour. A strong breeze suddenly sprung up from the west, and increased in less than half an hour to a storm. Every moment huge masses of ice around us were dashed against each other, and broken into a thousand fragments. Our little party remained fast on our ice-island, which was tossed to and fro by the waves. We gazed in most painful inactivity on the wild conflict of the elements, expecting every moment to be swallowed up. We had been three long hours in this position, and still the mass of ice beneath us held together, when suddenly it was caught by the storm, and hurled against a large field of ice. The crash was terrific, and the mass beneath us was shattered into fragments. At that dreadful moment, when escape seemed impossible, the impulse of self-preservation implanted in every living being saved us. Instinctively we all sprang at once on the sledges, and urged the dogs to their full speed. They flew across the yielding fragments to the field on which we had been stranded, and safely reached a part of it of firmer character, on which were several hummocks, and where the dogs immediately ceased running, conscious, apparently, that the danger was past. We were saved: we joyfully embraced each other, and united in thanks to God for our preservation from such imminent peril.'

More than once during this trip the party heard from the Tchukches that land could be seen far away in the northern seas. 'There was a part

of the coast,' so said a chief, 'where, from some cliffs near the mouth of a river, one might in a clear summer day descry snow-covered mountains at a great distance to the north; but that in winter it was impossible to see so far.' The part of the coast alluded to was Cape Jakan, which the explorers afterwards visited; but although they 'gazed long and earnestly on the horizon, in hopes, as the atmosphere was clear, of discerning some appearance of the northern land,' they 'could see nothing of it.'

After Back's last fruitless voyage in the *Terror*, no further steps towards discovering the north-west passage were made by the British government for seven years. Still, in certain quarters the desire to settle the long-agitated question prevailed as strongly as ever: one final effort, it was thought, should be made to traverse the Polar Sea from its eastern to its western mouth, and many scientific, as well as other considerations, were urged in its favour. The expedition now absent under Sir John Franklin's command was at length determined on; the ships selected—the *Erebus* and *Terror*—were those in which Sir James Ross had so successfully navigated the antarctic seas; and to render them more efficient, each was fitted with a small steam-engine. The route prescribed by official instructions was the track taken by Parry in his first and most fortunate voyage; to push directly westward from Melville Island to Behring's Strait, without deviation to the north or south unless appearances were decidedly in favour of such a departure; and in the event of reaching the Pacific, Sir John was to refresh and refit at the Sandwich Islands, and return to England by way of Cape Horn. The two ships were provided with ample stores for three years; patent fuel instead of coals for economy of stowage; everything, in short, that could promote health, comfort, or the cause of science. They sailed in May 1845, the *Terror* being commanded by Captain Crozier; since which time, with the exception of letters received a few weeks afterwards from some of the officers, and of their having been seen by the Lancaster Sound whalers, nothing whatever has been heard of them.

In 1847 it was felt that some effort should be made to ascertain the fate of the one hundred and thirty-eight individuals embarked in the missing vessels, who might be imprisoned in the ice, awaiting relief and rescue; and in May 1848 Sir James Ross, with Captain Bird as second in command, sailed in the *Enterprise* and *Investigator*, provisioned for three years, with orders to make for Barrow's Strait, and as much farther westward as might be practicable, with such examination of the coast and inlets as might lead to the discovery of Franklin. The complete equipment of this expedition, and the character of its commander, excited high hopes of its success, and great was the disappointment when it returned in November 1849 without the slightest intelligence of those whose fate had become a subject of deep anxiety. The ships had wintered at Leopold Harbour on the north-eastern extremity of Boothia or North Somerset, but with the exception of a survey of a previously-unexplored portion of the north-western coast of the same land, no result of importance was obtained. Illness prevailed among the crews to a greater extent than had been previously experienced, the seasons were uncongenial, and the ice intractable—circumstances all concurring to render the undertaking abortive. A vessel, the *North Star*, was despatched in 1849, as had been arranged, with

supplies of provisions, to enable Ross to continue his researches. Her captain was instructed to avoid passing a winter in the ice; but not having returned, the probability is, that he ventured too far to escape being frozen in.

Two other expeditions were despatched also in 1848, with the same object -- the relief of Franklin. 'Sir John Richardson, with willing zeal, came forward once more to assist in the search for his long absent friend; and with Dr Rae—who had been successfully employed in surveying the north-eastern coast for the Hudson's Bay Company in 1846-47—he descended the Mackenzie River to the Polar Sea; but no trace of the missing ships rewarded his exertions.

Meantime the brig *Plover*, Commander Moore, had been sent round to Behring's Strait, there, in company with the *Herald* surveying-ship, to make such advances and explorations among the ice as would best promote the object of discovering the *Erebus* and *Terror*. The result was equally unsatisfactory with that of the expeditions above mentioned. Portions of the coast previously surveyed by Beechey were again visited; Lieutenant Pullen was sent with a canoe party from Point Barrow to the Mackenzie, to reach the Hudson's Bay Company's forts on that river; a small group of islands was discovered and taken possession of, from which, as Captain Kellett of the *Herald* reports, lofty summits were visible in the distance. He considers it as 'more than probable that the peaks we saw are a continuation of the range of mountains seen by the natives off Cape Jakan (coast of Asia), mentioned by Wrangell in his polar voyages.'

Thus the fate of the missing expedition remained as uncertain as ever: and we have now only to mention briefly the various attempts that are at present (April 1850) in progress for ascertaining it. Captain Collinson and MacLure are on their way to Behring's Strait in the *Enterprise* and *Investigator*: they sailed on the 20th January last: Dr Rae, under the auspices of the Hudson's Bay Company, is exploring overland in the direction of Melville Island: four vessels, the *Resolute* and *Assistance*, and the *Pioneer* and *Intrepid* steamers, now being fitted out at Woolwich, are to sail in May, under command of Captain Austin, to renew the search left incomplete by Sir James Ross: Captain Penny, a whaler, is to explore Wellington Channel with two other ships: Sir John Ross is making preparations to co-operate in the same general service: rewards of £20,000 and £10,000 are offered by government for efficient relief to the Franklin expedition, or information concerning it; and lastly, two or three schooners, equipped by private subscription, are to go out from New York to unite in the work.

Here our brief history of arctic explorations terminates. The results hitherto obtained from them—the extension of whaling grounds apart—are, as will have been remarked, altogether different from those of a pecuniary nature. The astronomer, the geographer, the physicist, the naturalist, the chemist, and science at large, have acquired facts through their means which could have been gained in no other way. The cost has been great, but the consequences will be permanent; and the record of enterprising hardihood, physical endurance, and steady perseverance displayed in overcoming elements the most adverse, will long remain among the worthiest memorials of human enterprise.

SOCIAL UTOPIAS.

IN every country, and in all ages of the world, there have been sages and poets who, contrasting the present with the past, have seen reason to anticipate for humanity a destiny as superior to its condition in the time in which they lived as that was to the barbarism from which it had emerged; and embodying their sanguine anticipations in prophecy or philosophic fiction, have idealised a state of society in which the evils of the past and present should have no existence. These constantly-reproduced visions of the future have assumed a variety of forms, according to the circumstances of time and locality in which they have been promulgated, and the bent of mind of the author; sometimes appearing in a political form, as the veritable Magna Charta of the future; at others associated with some new theory of the mind; and often as a new religion, or a new manifestation of one more venerable. Such theories and speculations seem natural to the human mind under certain conditions, and it cannot be doubted that they have conduced to social progress, by spurring society onward, preventing stagnation and retrogression, and constantly directing the attention of mankind to a higher destiny. Though never generally received, who shall say to what extent they have influenced the progress of society? It is chiefly in this view that they command our respect and attention, as infiltrating public opinion with new ideas, suggestive of requisite reforms and ameliorations.

The idea of a state of society free from vice and misery of every description dates from a very remote period. All the ancient nations had a tradition that, in the first ages of the world, man enjoyed an existence uncontaminated by crime, and untainted with disease, surrounded by the beauties of nature, and living in innocence and peace upon the spontaneous productions of the earth. Such was the Eden of Moses and Zoroaster, and the Golden Age of the Greek poets. It may easily be understood how belief in this universal tradition, and the contrast of the barbarism which supervened upon the Golden Age with the more advanced condition of society in which he lived, led the philosopher Plato to imagine a state of society in which the simplicity and innocence of the golden reign of Saturn should be revived, and embellished with the artistic and scientific appliances of that degree of civilisation to which Athens had then attained. That he intended only to write an amusing fiction, as some have supposed, is very unlikely; it is far more probable that his aim was to picture a model

republic, the realisation of which he believed practicable, and anticipated as the ultimate constitution of society.

The philosophers and legislators of antiquity could not comprehend how order could be maintained in a state without the institution of castes, those barriers to progress which struck with immobility the civilisations of the past. In legislating for his imaginary republic of Atlantis, which he describes as a large island far to the westward of Europe, Plato may reasonably be supposed to have studied the political systems and social organisation of the ancient states, and to have drawn from them such institutions as he thought it desirable to perpetuate. In Egypt, in India, in Greece, even at Sparta under the communitive institutions of Lycurgus, he found the system of castes; and hence he divides the citizens of his ideal republic into three classes—the magistracy, the race of gold; the warriors, the race of silver; and the workmen, the race of iron. But as if he saw in this classification a tendency to repress the aspirations of genius in the most numerous class, he immediately provides a remedy for the evils of caste in a divine ordination, that a citizen of the race of gold should have a son of the race of silver, and *vice versa*; and that one of the race of iron should have a son of the race of silver, perchance of the race of gold. Thus the principle of caste is broken down; for where these conditions are possible, it exists no longer, and the fusion of castes becomes but a question of time.

The citizens of Atlantis have established among them the community of goods, an institution little compatible with that of caste, though not absolutely opposed to it. Even the women were common to all—a blemish in his social system into which Plato was led by the general laxity of morals in the Grecian states, and the prevalence of the custom among several ancient nations. This leads him to the establishment of the common family, all the children being recognised as the heirs in common of the state, which charges itself with their maintenance and education. Thus another blow is struck at the institution of caste, which seems, indeed, to have been admitted by Plato only as a sacrifice to the spirit of the age in which he lived, while he doubted the necessity of maintaining it, and provided for its ultimate abolition. If he had wished to perpetuate castes; he would not have established the common family, and the community of women and goods, nor have admitted the possibility of the fusion of classes. The poets were banished, lest they should corrupt religion with their mythological fables; and no foreigners were allowed to reside in the island, lest the citizens should be led by them to adopt luxurious habits and injurious innovations in their political and social system.

Of the Thaumasia of Theopompus, a philosopher of Chios, whose fame as a historian is celebrated by Athenæus and Dionysius of Halicarnassus, only a fragment is extant. This is a dialogue between Midas, king of Phrygia, and the demi-god Silenus, in which the latter informs the former that, beyond the great ocean which lies to the westward of the Pillars of Hercules, there is an extensive continent, inhabited by a race of giants, and inferior animals of corresponding size. The people of this continent possessed many large cities, and some peculiar institutions; one of their cities was called Eusebes, or the Holy City, the inhabitants of which lived to double the ordinary period of the duration of human life in Europe.

SOCIAL UTOPIAS.

The country around the city of Eusebes was like a garden, and the inhabitants lived without toil upon the spontaneous fruits of the earth; war and strife were unknown among them, and sickness never invaded their dwellings. So peaceful and innocent were their lives, that the gods mixed in familiar intercourse with them, as the Olympian deities are fabled to have done with the Arcadians in the Age of Gold.

Arranging social theories and experiments in the order of time, for the better understanding and appreciation of each, as they often illustrate each other, we proceed from imagination to reality, from the social idealists of antiquity to the workers out of their conceptions. The latter are more significant than the former; between them there is all the distance which separates opinion from fact, theory from practice. We meet in all ages with associations of individuals separating themselves from the outward world, striving to organize a state within a state, and constituting a living protest against exterior society. The first of these which history has recorded is that of the Essenes, a sect of the Jews, concerning whom Philo, Josephus, and Pliny, have left us ample details. Both the Jewish historians speak highly of their morality, and the innocence and peacefulness of their lives; Josephus indeed says that 'they exceed all other men that addict themselves to virtue.' They believed in one God, and in a future state, and observed the Jewish Sabbath; but they offered no sacrifices. Their number in the time of Josephus was about four thousand, and all were engaged in agriculture. They had no particular town, but were scattered in groups through the principal parts of Judea; and when one of them travelled, he was received as a brother by the Essenes of every place that he came to. They held all their property in common, appointing stewards to conduct their financial affairs; and as all among them were content with the necessities of life, they sought not to amass wealth. War they considered contrary to religion; regal domination they regarded as impious and unjust, since all men are brothers; and trade they esteemed the source of avarice and luxury. Looking upon all men as free and equal, and united by the ties of universal fraternity, they had no slaves, or even servants, but laboured equally, and were the servitors of each other. As many as lived in one town or village had their abode under one roof, and had their meals together, like the citizens of Sparta and Crete. They precluded their frugal meals with a prayer, and were noted for their temperance and abstemiousness. Their dress was plain and simple, and the colour most in esteem was white—a preference which evinces their love of cleanliness. Marriage was discountenanced, and the voids made in their communities by death were filled up by children whom they adopted, and reared according to their own formula, and by converts, who were only admitted, however, after a long probation. Marriage was not absolutely forbidden, however; and we learn from Josephus that there was an order of Essenes who had wives, but who were strict monogamists.

In the education of the children which they adopted, the Essenes chiefly directed their attention to the healthful and vigorous development of their frames, and the cultivation of the moral sentiments. They forbade oaths; but Josephus testifies to their strict regard to truth, and the justness and probity of all their dealings. They paid great respect to the aged, and

supported the sick, the disabled, and the superannuated out of the common stock. Riches, sensual pleasures, and vainglory they held in contempt. 'They formed themselves,' says Philo, 'to sanctity, to justice, to domestic economy, to social duties, by regulating themselves upon three principles, which resumed all their doctrines: *Love God, love virtue, love mankind.* Their love for God proved itself by their purity of life, by their chastity, by the anxiety which they had to fulfil all their relations to the Divinity. Their love of virtue resulted sufficiently in their contempt of wealth, of pleasure, of vainglory, and also in their patience, in their frugality, in their temperance, in their simplicity, and in their respect for the laws; while their love to their neighbours they proved by their benevolence, their equity, their charity, and by a system of community in which there was no interest to be covetous.'

There is so much resemblance between the doctrines and customs of the Essenes and those of the primitive Christians, that Montfaucon, a learned Benedictine, doubted the antiquity of the Essenes, and considered them as a sect posterior to the time of the apostles. Josephus speaks of the Essenes as a sect of the Jews more than a century and a-half previous to the Christian era; but it is probable that the early Christians derived from them some of their customs and observances, and the more so, as the Essenes were universally esteemed for their piety, and the purity and simplicity of their lives. It is easy to recognise this resemblance in the abolition of slavery and of sacrifices, in the repugnance to war and oath-taking, in the repasts in common, in their austere morality, and in the community of goods, a distinguishing feature of the social economy of the Essenes, and for a certain period of Christianity likewise. Whether the last-mentioned custom ever extended beyond the primitive church of Jerusalem is uncertain. It was probably adopted there as a means of drawing closer the bonds of union and fraternity, when persecution menaced the little band of disciples with extinction, and ended with their dispersion over Judea, previous to the taking of Jerusalem by Titus. The brief existence of the practice, however, and its recognition, more or less direct, as a Christian institution, by Justin Martyr, Irenæus, Tertullian, Origen, St Barnabas, and St Ambrose, led to its adoption by the monastic orders, and to the claim of the church's authority and sanction by the social sects of later times.

The revolution of ideas brought about by the religious reformation of the fourteenth, fifteenth, and sixteenth centuries, caused the resuscitation of the doctrine that common property was an integral part of Christianity; and among the long-enslaved serf-class it spread with the rapidity of wildfire. For them the Reformation would have accomplished nothing, if it did not eventuate a social revolution as well as a religious one. The disciples of Wicliffe, of Lûther, and of John Huss, quoted the apostles and fathers of Christianity, particularly the remarkable declaration of St Ambrose, that 'nature has given all things in common to all men. Nature has established a common right, and it is usurpation which has produced a private claim.' John Ball, a reforming priest, proclaimed in Kent the doctrine of the natural equality of all mankind, and the result was the poll-tax insurrection, headed by Wat Tyler. Similar in its causes was the insurrection, at a later period, of the peasantry of Saxony and the Rhenish provinces, and the commotions, more important

in their results, of the Hussites in Bohemia. Here the outbreak took a more definite form, and was conducted by the indomitable Zisca with the avowed aim of establishing a social republic upon the ruins of the existing institutions. Romanism was to be succeeded by the reformed church, monarchy by a republic, aristocratic feudalism by democracy; the lands of the Bohemian nobles and gentry were to be parcelled out among all the people, as the Lacedæmonian state was by Lycurgus; and all feudal tenures and exclusive privileges to be utterly abolished. Such a state of things could only be maintained in that age while the Hussites remained in arms, especially as the ranks of Zisca's army were mainly recruited from the labouring-classes, and all that had been permanently gained at the termination of the civil war was the recognition of the reformed religion.

At the commencement of the sixteenth century, the doctrine of the community of goods was revived by the Anabaptists. They excited a tumult at Amsterdam, and raised an insurrection in Westphalia. 'We have one common father, Adam,' said Muntzer, one of their leaders: 'whence comes, then, the diversity of ranks and of goods?—why groan we in poverty while others have delicacies? Have we not a right to the equality of goods, which, by their nature, are made to be parted without distinction among us? Return us the riches of the time being—restore us that which you retain unjustly.' To the community of goods, a feature common to all Utopias, under a form more or less modified, the Anabaptists added the community of women and the common family—ideas borrowed from the social republic of Plato. In common with the general Baptists, and the United Brethren, and other religious sects of a later date, they held the doctrine that baptism should not be performed until the candidate had arrived at an age to understand the nature of the ceremony, and then by dipping in the water, instead of by sprinkling. To this point of difference from the established churches of the countries in which the sect sprung up they added the more dangerous tenet, that with those who have the light of the Gospel to direct them the office of magistrate is unnecessary, and an encroachment upon liberty. The theological doctrines upon which they grounded their dissent alike from Luther and from Calvin were harmless enough, and even their resolution to communise their property and labour might have been regarded merely in the light of an experiment in social science; but their political principles were so utterly subversive of all authority, that they drew upon themselves a persecution which they possibly might otherwise have escaped.

Muntzer, the first Anabaptist leader, died upon a scaffold at Mulhausen in 1525. His fate did not diminish the ardour of his disciples, who continued to propagate his doctrines, which were eagerly received by the working-classes, and especially by the peasantry. John Beccold, a tailor of Leyden, and John Matthias, a baker of Haarlem, were declared prophets; and the former was afterwards inaugurated as their king. Enthusiastic and sanguine, determined to maintain and carry out their doctrines by force of arms, they rose in insurrection under their leaders, the said John Beccold and John Matthias, and seized the city of Munster, to which they gave the name of Mount Zion. Here they established the Anabaptist family, and reduced to practice the doctrine of a community of women and of goods. They revived the love-feasts of the early Christians; but the simplicity and

austere morality which had characterised all former attempts to render the equality of mankind an actuality was unknown among them. Teaching the reconciliation of the flesh and the spirit, and the sanctification of the former by the latter, they indulged in festivities and sensuous delights, until the imperial troops invested their city of refuge. Though immersed in sensuality, they made a brave defence. Matthias fell in a rash sally, and Munster was at length taken by storm. Most of the Anabaptists died fighting; but Bockold was made prisoner, and executed, after suffering the most cruel torments, which he bore with the fortitude of a martyr.

Among the religious Utopias of this period, that of the Millenarians must not be omitted. These are more prophetic than practical: they are content to defer until the second advent of Jesus the realisation of that dream of equality which the Anabaptists sought to work out in their own day. Basing their anticipations of the future upon the prophecies of Isaiah, Daniel, and Jeremiah, they await the millennium, or thousand years' reign of Christ, commencing with his second coming, which Agier fixed for the year 1819. Under the reign of the Messiah the earth is to be a terrestrial paradise; the antipathies of the brute creation will cease to be displayed; and the wolf will lie down with the lamb, and the lion with the suckling-calf. It will be the reign of universal peace and love, and Christ will be at once the president and pontiff of the great Communion. Isidore Isolanis, however, anticipating the Millennium, nominated Pope Adrian VI. the chief of the world-republic; and Nodin, curate of Marsilly, expected the return to earth of the prophet Elijah. Louis Reybaud states that the Millenarians await the reappearance of Jesus to this day at appointed hours, and even in England the sect is not yet extinct.

After the Anabaptists, no attempt to reduce to practice the speculations of the social theorists was made for more than two centuries and a-half; that period, however, had its full share of society fictions and constitutions for ideal commonwealths. Of these the most celebrated is the 'Utopia' of Sir Thomas More, a work which will bear comparison with the 'Atlantis' of Plato, and which has added a word to the English language, every theoretical system of society being since called Utopian. Utopia is a beautiful island in the Atlantic; the manners of the people are peaceful, their customs simple, their laws derived from nature, and their religion one of charity and love. All its citizens are well educated, no one is persecuted for his belief, they engage in war only for their own defence, and the punishment of death is unknown among them. The supposition of criminals under such institutions as those of Utopia mars the beauty of More's delineation; mildness is preferred by the Utopians to severity, however, and instead of being put to death, malefactors are reduced to slavery. The penal laws of England in More's time were terrible in their severity, and the rigour with which he persecuted the Protestants proves that he did not regard the views propounded in his 'Utopia' as practicable in his own age. The institution of monogamy, modesty of relations between the sexes, and the absence of castes, place a wide difference between the ideal commonwealth of More and that of Plato; we feel and understand, in perusing the 'Utopia,' all the influence of Christianity upon society. The basis of the government in Utopia is

election. Over every group of thirty families there is a philarch, and to every ten philarchs a protophilarch. The council of protophilarchs and the senate are elected every year, and the chief magistrate is elected for life by these two assemblies, but removable by the majority upon any proved misconduct. Labour and property are in common in Utopia, and every one makes his wants the measure of his desires. The Utopians desire, in their clothing, no other quality than durability; they set no value upon the precious metals, and esteem intellectual pleasures the highest source of enjoyment. Their communal repasts are enlivened by music, and their banqueting halls perfumed with the most exquisite odours. All the Utopians are agriculturists; but every man applies himself to some occupation in addition to his share of the common labour in cultivating the soil, such as the woollen and linen manufactures, or the mechanical arts connected with architecture. Each family also makes its own clothes, and the same trade generally descends from father to son, but departures from this rule are allowed; and indeed nothing can be more unfavourable to social progress than the tendency to caste which is inherent in the hereditary succession of trades. In consequence of the equal division of labour, and the economy of management among the Utopians, no one works more than six hours per day; and the labour being so light, and the enjoyment of its fruits so well assured, no one seeks to evade his share.

Similar in design to the 'Utopia' of More were the other philosophic fictions produced between the era of the Reformation and that of the first French Revolution. Little more than the enumeration of these must suffice: the list embraces the 'New Atlantis' of the philosopher Bacon; the 'Oceana' of the republican Harrington; the 'City of the Sun' of Campanella, a Calabrian friar, a work which Reybaud describes as 'a fantastic creation full of grandeur'; the 'Other World' of Hall; the 'Isle of Pleasures' of Fenelon; the 'Gaudenia di Lucrea' of Berkeley; the 'Austral Discovery' of Retif de la Bretonne; the 'Dream of Perpetual Peace' of the Abbé St Pierre; and the 'Basilade' of Morelly. Many features of the 'Atlantis' and the 'Utopia' are common to all these visions of the age of gold; but most of them exhibit a return towards nature rather than an advance towards the refinements of civilisation. It is generally of Arcadia that the writers dreamed: its sunny skies, its blue hills, its cascades, and its shepherdesses; but one chain of ideas pervades them all—the amelioration of man's condition, the association of interests, the harmony of the passions, the unity of sentiment. Morelly was perhaps the most sincere believer in the practicability of the views which he advanced, and his 'Code of Nature' is an elaborately-written work, advocating the same social principles which, in the 'Basilade,' he had presented in the garb of fiction. The idea of the latter work, which was for a long time attributed to Diderot, was taken from the account given by Gregory of Nazianzen of a famous charitable institution as large as a town, founded by Basilus of Caesarea, a noted rhetorician and Christian preacher, and named after him the *Basilias*.

Who were the workers-out of these social fictions of the sixteenth and seventeenth centuries? We find them only in two of the more obscure religious sects—the Moravians and the Shakers; or, as they call themselves,

the Society of United Brethren, and the United Society of Believers. The first of these sects sprung up in Moravia, from which they derive the name by which they are commonly designated; but being persecuted by the Austrian government in the middle of the seventeenth century, they settled themselves in Hungary and Transylvania. Their religion is the utmost simplification of Christianity: they have no priests, but their elders, of whom there are three or four to each community, read the public prayers every morning and evening, and deliver a religious and moral discourse on the Sabbath. Their doctrines differ little from those of the Lutheran church, except as regards baptism: this rite is left unperformed until the children are ten or twelve years of age, when, if they can repeat the catechism of the sect correctly, and make a confession of their faith openly before the congregation, the elders point out to them the duty and benefit of being joined in membership to the rest of the brotherhood. Believing that the heart deceives less than the reason, the Moravians rely more upon goodness than upon intelligence; and Samuel Hartlib, an English traveller, writing from their colony at Sarospatak in Hungary in 1659, describes them as 'an honest, simple-hearted people, humble, godly, laborious, well-trained up, and lovers of discipline.'

Each of the Moravian communities is composed of several hundred families, who all reside under one roof; they have a common kitchen and dining-hall, and the men of every trade have their distinctive workshop. They have no social distinctions or classes among them, but each brother follows some manual occupation, and the produce of his labour is thrown into the common stock, to provide therefrom for the wants of all. Each community elects a steward and three or more elders, according to the number of the brotherhood; and these have the charge of all their domestic and financial affairs. They have no privileges or immunities, but greater responsibility; the steward buys and sells on account of the community, and has to render an account of his management. At their common repasts, however, the steward and elders sit at a separate table, the other brothers and the women sit at separate tables, and the children likewise sit apart—the boys at one table, and the girls at another. The members of each community are divided into choirs, according to sex and state: there are choirs of youths and of maidens, of husbands and of wives, of widowers and of widows. Maidens, wives, and widows, are readily distinguished by the colour of their ribbons.

All the children are educated in common by properly qualified persons, under the superintendence of twelve brothers selected for that purpose. The boys and girls are instructed apart, but all are treated alike as the children of one father. All things being common among them, individual accumulation is impossible, and heritage is unknown; yet no one has any trouble or anxiety concerning the education, training, and maintenance of his children. Marriage is among them the object of delicate attention and scrupulous anxiety, and unmarried men are seldom met with in their communities. There being no considerations of selfish interest on either side, their unions are prompted by affinity of sentiment alone, and are nearly always happy. An elder performs their simple marriage ceremony, and pronounces a blessing upon the married pair in the presence of all the brotherhood.

The United Brethren have now extended their communities into Southern Russia and other parts of Europe. All their settlements maintain their connection with each other, and co-operate in maintaining and carrying out a religious propaganda, which has sent forth its missionaries to Southern Africa, the West Indies, Canada, Labrador, Lapland, and even Greenland. Active colonists and zealous apostles, it is seldom that they fail in their propagandist enterprises. Their missionaries possess in a high degree the qualities which most contribute to success—patience, devotedness, earnestness, benevolence, and untiring energy. Most of their establishments borrow their names from places mentioned in the New Testament—as Nazareth, Bethlehem, Genesareth, Sharon, Galilee, and Sarepta.

There is a considerable resemblance, it will be seen, between the Moravians and the Essenes; the foundation of their systems is the same, and many of the details are identical. There is between them precisely the distance which separates Judaism from Christianity: the Moravian family is less ascetic—it rests upon a wider basis, and is more concerned with this world. In some points they approach Quakerism, and in others they exhibit an approximation to the psychological principles of St Simon and Fourier: so nice are the shades of difference between the sects established upon principles of dissent from society, as well as from the churches, social not less than religious.

The United Society of Believers, commonly called Shakers, originated more than a century after that of the United Brethren; its founder was a female, a native of Lancashire, whose name was Anne Lee. Accompanied by a few friends and disciples, she emigrated to the United States, then agitated by the approaching rupture with the mother country, and cast upon the soil stirred by Franklin and Paine the seeds of a new social and religious faith. Anne Lee was but the wife of a poor blacksmith, and had received little or no education; but her faith was great in the principles which she believed it her mission to teach, and she was undoubtedly actuated by the purest motives, by a sincere desire to provide a remedy for the evils which afflict society. It was some time, however, before the principles which she and her immediate disciples propounded made much progress. The self-denial which they inculcated, their peculiar religious opinions and mode of worship, and the importance which they attach to the unnatural institution of celibacy, attracted few minds. It was not until they established the community of property among them that they made much progress in extending their sect: then their numbers began to increase, and in 1780 the first Shaker community was established at Niskayuna, now called Water-Vliet, eight miles from the town of Albany, in the United States. In 1805 the number of their communities had increased to twenty; in 1847 there were eighteen, and the Shaker population was estimated at between 4000 and 5000; and they are certainly not upon the increase. Harriet Martineau and J. S. Buckingham, who have both visited the Shaker community of New Lebanon, describe their success in the accumulation of property and the acquisition of the means of material comfort as most surprising. 'There is no question of their entire success,' says the former, 'as far as wealth is concerned. A very moderate amount of labour has secured to them in perfection all the comforts of life that they know how to enjoy, and as much wealth as would command the intellectual

luxuries of which they do not dream. The earth does not show more flourishing fields, gardens, and orchards than theirs. The houses are spacious, and in all respects unexceptionable. The finish of every external thing testifies to their wealth both of material and leisure.' The writer adds, 'If happiness lay in bread and butter, and such things, these people have attained the *summum bonum*.'

The Shakers attach little importance to mental cultivation, and hold scientific attainments in small esteem. Here we see a resemblance to the Moravians; but in other respects they approach nearer to the Essenes than any of the religious sects among whom the community of property is or has been practised. In their communities the sexes are completely separated: man and woman are among them two imperfect halves of humanity. They occupy distinct portions of the house, they work and have their meals apart, and sit apart in the chapel, which has two entrances—one for the males, the other for the females. In their costume both sexes assimilate somewhat to the Society of Friends, with the addition of such eccentricities of dress as red stockings for the men. Their mode of worship is calculated to excite a smile or a feeling of compassion, according to the tone of the spectator's mind. Their religious exercises commence with a hymn, which is sung to a lively tune, after which they prostrate themselves thrice upon the floor of the chapel; then they sing again, which is followed by the men pulling off their coats, preliminary to a scene perhaps only paralleled among the dancing dervises of the East. They dance, jump as high as they can, clap their hands, and make such other extravagant demonstrations of joy as might be expected only from the uncivilised aborigines of Caffraria or Australia. These singular exercises they call manifestations of their joy and gratitude for the goodness of the Creator.

As might be expected, the inmates of the Shaker communities are generally ignorant to a lamentable degree. The religious sentiment and the principle of celibacy are with them paramount. The singularity of their religious exercises, the importance which they attach to entire abstinence from marriage, their neglect of mental cultivation, and the little consideration which they display for intellectual attainments, must inevitably tend to diminish the number of those who join them in the same ratio as the true elements of social and domestic happiness become understood and appreciated in the outer world. The peculiar aspect which the Utopian idea has assumed in their communities is so repellant—so contrary, indeed, to the prevailing ideas of what social existence ought to be—that there can be little doubt that their numbers will soon become stationary, and then rapidly decline. It is certain, however, that the greatest amount of success has attended those social sects which have made their formula of association subordinate to their religious views. Unity of religious sentiment has given them a power of coherence which they would not otherwise have possessed, and which the withdrawal from ordinary and accepted modes of life has only confirmed. 'Whether the maintenance of this consolidation' [of interests], says a writer who has lived some time in one of their communities, 'is absolutely dependent on their particular spiritual position, may well be questioned. Its violation of the sacred marriage unity must for ever prevent its entering into harmony with the hallowed feeling of community now becoming prevalent. It is indeed probable that this, the

secret of its strength, is its ever-present agony, and will at some not very remote period prove the cause of its overthrow.'

The Moravians and Shakers are the only social sects which date from the seventeenth and eighteenth centuries, if we except the Idealists, who sprung up with the progress of the tremendous political convulsion of which France was the scene in the latter years of the last century. It seems that the religious sects which have been described must be referred to the Reformation rather than to the particular Utopias of More, Bacon, Harrington, Fenelon, Campanella, and Morelly; but that these had no effect in producing later projects for the regeneration of society, is by no means to be inferred. The ideas upon social amelioration and improvement which they contain were revolved and elaborated in the minds of poets, philosophers, and politicians, and only the French Revolution was required to bring them from the under-current of opinion to the surface. Rousseau and the Illuminists generalised the views enunciated by the writers of social fictions, and gave them a distinct aim and a practical direction; and the Revolution found the idea of the reconstruction of society, and the amelioration of man's condition, germinating in the bosom of Condorcet, of Robespierre, and even of the furious and sanguinary Marat.

In our own country the enfranchisement of ideas eventuated by the French Revolution of 1793 produced the societary speculations of Godwin, the equalitarian tendencies of the earlier poems of Southey, the Millennial dreamings of Coleridge, and the splendidly-conceived poetic Utopias of Shelley. Godwin and Shelley retained through life their faith in the practicability and ultimate realisation of their societary theories; but it is well known that the opinions of Coleridge and Southey underwent a change, and became considerably moderated. This was more particularly the case as regarded the latter, and was the more marked, from the intolerance which afterwards distinguished his attachment to the institutions of the present. It was while domesticated with Southey at Keswick that the opinions of Coleridge underwent a change, and that he abjured the Utopian visions of his youth. In their earlier days, Coleridge and Southey, in conjunction with a literary friend named Lloyd, as enthusiastic as themselves, had determined to emigrate to America, and found upon the banks of the Susquehanna a Pantisocracy, or state of society in which all things were to be in common—education, family, labour, property, and suffrage. The idea was never realised, chiefly owing to the want of funds; and in five years after it was entertained by them, the opinions of both Southey and Coleridge underwent a change.

It is chiefly in his 'Religious Musings'—a desultory poem written on the Christmas eve of 1794—that we find the Utopian ideas of Coleridge, and those references to the Millennium, to which allusion has been made in the preceding paragraph. After descanting upon the person and character of Christ, and the influence of Christianity upon the mind, he inveighs against the war with France, and then proceeds to examine the origin and uses of government and property. To the institution of private property he traces selfishness, avarice, and luxury, and to these war, oppression, poverty, and disease; but he considers the fine arts to have sprung from luxury, and the sciences from

————— 'Keen necessities
To ceaseless action goading human thought.'

He sees, with the Optimist, good in evil; and from the scientific and mechanical appliances, which mankind would not have possessed but for the 'keen necessities' of the past, the poet educes a brilliant future for the human race, when man shall be a law to himself, and the universal family shall enjoy in common the produce 'raised from the common earth by common toil.' This stage of society, he supposes, will be succeeded by the Millennium, the thousand years' reign of Christ, 'in which,' he says in a note, 'I suppose that man will continue to enjoy the highest glory of which his human nature is capable; that all who, in past ages, have endeavoured to ameliorate the state of man, will rise and enjoy the fruits and flowers, the imperceptible seeds of which they had sown in their former life; and that the wicked will, during the same period, be suffering the remedies adapted to their several bad habits. I suppose that this period will be followed by the passing away of this earth, and by our entering the state of pure intellect.'

The poetry of Shelley is even more Utopian than that of the bards of Pantisocracy: he is the poet of the future, as essentially as Byron is of the present, and Scott of the past. His 'Revolt of Islam,' his 'Queen Mab,' and his 'Prometheus Unbound,' are Utopias in verse. It was the creed of Shelley that human nature is capable of being rendered perfect; that kings and priests have hitherto hindered that glorious consummation for the attainment of their own selfish purposes; that religion is hostile to the development of feelings of charity and fraternity; and that, if the inherent goodness of the human heart was free to work out its mission, the Golden Age would be realised. There can be no doubt that Shelley really believed his principles to be correct, and his views attainable; and his untiring benevolence in visiting the cottages of the poor during his residence at Marlow stamps with sincerity and disinterestedness his eloquent pleadings for humanity. 'Queen Mab,' which is perhaps the most generally known of Shelley's works, and which was written by its gifted author at the age of eighteen, with all its strange paradoxes and contradictions, is a poem abounding in fine passages. He supposes the soul of a female character called Ianthe to leave the body during sleep, and to ascend, under the guidance of the fairy Mab, to the latter's cloud-roofed palace, from whence she contemplates the earth, and surveys the ruins of Jerusalem, Palmyra, Athens, and Rome. Then she beholds a battle-field, and a town destroyed in the conflict, and the deathbed of a tyrant, and the poet descants upon the horrors of war, the evils of monarchy, the vices engendered by competitive commerce, and all the social errors and evils of the present. The spirit describes the *auto-da-fé* of an atheist, and Mab, after defending and supporting materialism, summons the Wandering Jew, who relates the crimes and abuses, and consequent misery and suffering, which are alleged to have resulted from Christianity. Having thus passed in review the past and the present, the fairy queen favours Ianthe with a glimpse of the future, when all the moral and material beauty of the Golden Age, and all the prophetic anticipations of the Millennium are realised and fulfilled. The earth, in the language of St Simon, is rehabilitated, and no longer produces rank weeds

and poisonous fungi, but everywhere flowers and fruits. Fens and marshes, which had exhaled malaria, are covered with the ambery corn; the whirlwind and the storm are known no more; the burning deserts of Arabia and Africa are rendered cultivable; the polar ice is dissolved; and the wild denizens of the forests have forgotten their thirst of blood—the lion sports with the kid, and the child shares its meal with the ‘green and golden basilisk.’ The nature of man has experienced a change corresponding with this beautiful picture of the external universe—war, slavery, commerce, and all the evils of present society, are no longer known; his passions are attempered and harmonised; temperance has banished disease from his frame, and prolonged his life, and his existence has become a long summer’s day—a dream of Arcadia or Paradise realised.

The ‘Revolt of Islam’ is a poetic Utopia of a somewhat different cast. The poet arises from slumber visited by unquiet dreams, and meets on the seashore a beautiful female form, by whom the story is related. She is beloved by a spirit, who conducts her to the glorious senate of the departed friends of the human race, where she meets Laon, a patriot of Argolis, who relates the story of the revolt of his countrymen against the tyrant of Islam. This poem is far superior to ‘Queen Mab,’ and is replete with passages of exquisite beauty; the glory of the poet’s genius is unobscured by the dark passions, the doubts, the misanthropy, or the cynicism, of Byron; and it is seen in this more than in any other of his poems, except perhaps the ‘Prometheus Unbound.’ The hymn in the fifth canto, of the nations who have liberated themselves by revolt, is a complete exposition of Shelley’s views and opinions: it declares fear to be the cause of man’s misery and degradation; proclaims the moral beauty of equality; and announces the advent of peace, love, freedom, and universal brotherhood. The mythic story upon which the ‘Prometheus Unbound’ is founded is well known: it is as metaphysical and mystical as most of Shelley’s poems; and the atheistic tenets of the poet are as boldly avowed and proclaimed in it as in any of them. The idea of the perfectibility of human nature is here reproduced; and the overthrow of Jupiter, and unbinding of Prometheus, harbingers the restoration of the Golden Age. These three poems present us with a complete view of Shelley’s social philosophy; and the whole tenor of his life, and the revelations of his character given to the world by his widow, prove that he really believed it practicable, and was actuated in its enunciation by the purest and most benevolent motives.

The Utopias of antiquity, and of the period between the Protestant Reformation and the French Revolution of 1793, were confined to a few ardent and talented philanthropists, living in ages and countries remote from each other, and their speculations descended not among the masses. Those of More, Bacon, Hall, and Campanella, were written in Latin, and their authors never dreamt of addressing themselves to the people, or of attempting to reduce to practice their visions of societary perfection. The Moravians and Shakers, equally with the Hussites and Anabaptists, must be considered as derived from the religious agitation of the Reformation; and it was not until the close of the eighteenth century that the idea of social regeneration began to mingle with the aspirations of the masses for political emancipation. It entered into the philosophy of Condorcet; we

find it in the insane ravings of Marat, though every page of his journal seems inspired by the genius of bloodshed; and it was the ever-present day-dream of the stormy life of Robespierre. 'Robespierre's doctrine,' says Buonarotti, 'was, that the Revolution ought to change altogether the moral and material condition of the labouring-classes.' The reconstruction of society was too vast a scheme for his brief political existence, during which France was torn by intestine as well as exterior strife, and no social changes were seriously projected until the Babouvist agitation and conspiracy of 1796.

When the Jacobin Club and its affiliated societies in the departments had been closed by the Directory, and the workmen disarmed by the authorities under the terror of a threatened bombardment of the faux-bourgs, the democratic party established a club in the vaults of the Pantheon, where they assembled and organized their forces, and at which a man named Babeuf, as well from the paucity of talent which successive decimations had created in the Jacobin ranks, as from his enthusiasm and extreme opinions, became the principal orator. He also edited a journal, in which he supported the constitution of 1793, the communisation of property, and a new organisation of industry. From the tribune of the Pantheon Club, and in the pages of his journal, Babeuf constantly proclaimed the doctrine of equality, urging upon his auditors and his readers that it should be something more than common suffrage, and had a more comprehensive signification than that given to it by the legal interpreters of the constitution. Political inequality he regarded as a less evil than those social inequalities which create so much dissonance in society, such wide-spread misery, such heartburnings, and such crimes. He declared that the soil of every country was the common birthright of the people of that country, and that it was right and proper that every citizen should perform his due share of physical or intellectual labour, which, with the communisation of property and the abolition of heritages, would establish veritable equality.

'It is easy,' said he, 'to make every one understand that a few hours' occupation per day would secure to every individual the means of living agreeably, and permanently relieve him from those anxieties by which we are now continually undermined; and surely the man who now slaves himself to exhaustion in order to have a little, would work a little in order to have much.' Labour, he considered, would, under his system, be no longer disagreeable, but become a mild and pleasing occupation, of which no person would have either the inclination or interest to elude his share. 'It would be right,' says Buonarotti, his disciple and historian, 'to charge in turn all the able-bodied citizens with the more repulsive labours, the disagreeableness of which, it was hoped, would be progressively but rapidly diminished by a masculine education, and by the assistance of mechanism, chemistry, and the physical sciences in general. Probably it would have been convenient to distinguish the works of strict necessity into easy and painful, and to oblige each citizen to exercise one of one class, and one of the other. Probably it might also have been just to establish another division of citizens, according to age, for the purpose of proportioning the labour to the increase and diminution of strength, for in matters of this kind equality ought to be measured and determined less by the intensity

of the labour required than by the capacity of the labourer.' 'It may be said,' says the same writer, 'what will become of those productions of industry which are the fruits of time and genius? Is it not to be feared that, being no longer better recompensed than other descriptions of labour, they will be altogether extinguished to the injury of society? Sophism! It is to the love of glory, not to the desire for riches, that we have been at all times indebted for the efforts of genius. Millions of poor soldiers devote themselves to death for the honour of serving a cruel master, and shall we doubt the prodigies that might be operated upon the human heart by the sentiment of happiness, the love of equality and country, and by the noble incentives to a wise policy?'

Such doctrines as those promulgated by Babeuf could not fail to command a considerable share of popular favour, and among the working-classes, in particular, they were adopted with enthusiasm. True to the unconquerable spirit that had actuated them from the commencement of the Revolution, those of Paris at least were still ready to embrace any formula or any scheme which promised to restore the constitution of 1793. The meetings at the Pantheon were attended by excited crowds, whom Babeuf harangued in a strain of fervent and enthusiastic oratory, until at length the attention of the government was drawn upon them, and prompt measures adopted for their suppression. On the 26th February 1796 the doors of the Pantheon were closed by the authorities, but another building was shortly opened, in which the disciples of Babeuf continued to assemble, and in which they set up the busts of Robespierre and Marat. The organisation of the Babouvists and the agitation of their principles had now reached a point at which the leaders thought it behoved them to consider the means of rendering the social republic an actuality. It is not surprising, when the temperament of the French people is considered, that such an enthusiast as Babeuf should have hazarded an appeal to arms, or that men so excitable as the workmen of Paris, accustomed as they had been to *émeutes* and insurrections for the last seven years, should have been ready to participate in a movement which promised to restore them even more than that of which they had been deprived by the constitution of 1795. A plan of insurrection was concerted between Babeuf and his friend Darhé, which was to be upon an extensive scale. Active emissaries were distributed through the disaffected quarters of Paris, and sent to try the feeling among the troops in the camp of Grenelle; a programme of the new government was drawn up; a Committee of Public Safety resolved upon, and concentric movements upon the seats of the Directory; and the Councils all scientifically arranged. Unfortunately for the success of the enterprise, the conspirators had admitted to their confidence an officer named Grisel, who betrayed their designs to the government on the eve of their execution; and on the 10th May 1796, Babeuf, Darhé, and seven others, were arrested, and brought to trial before the high criminal court of Vendôme. Being convicted, the two principal conspirators were condemned to the guillotine, and the rest to transportation for life to a penal settlement. Babeuf and Darhé, on hearing their sentence, stabbed themselves in the dock, in the presence of the judges; but the instruments of intended self-destruction broke, and thus frustrated their intention. After passing a night of extreme suffering, during which the blade of the weapon

remained buried in Babeuf's wound, close to his heart, he and Darthé atoned for their attempt upon the scaffold. Their conspiracy excited the utmost consternation throughout France, though even those who regard Babeuf as a fanatic and ideologist, have acknowledged their conviction of the sincerity of his desire to realise what he conceived to be the universal welfare in his system of social equality.

6

More than a quarter of a century elapsed after the execution of Babeuf and Darthé before any new theory of society was submitted to public opinion in Europe, or any fresh attempt made to reduce to practice Utopias of an earlier date. The din of war, resounded throughout Europe, and the political reaction damped the aspirations of the enthusiastic, or induced them to look to America as the only land in which any attempt could be made to solve the problem of social organisation. In the United States, indeed, several attempts were made during this period to work out some plan of social amelioration, and by none more successfully than by the Harmonists, the Economists, and the Fraternalists.

The first two of these social sects sprung from the Separatists of Germany—so called from their having dissented and separated from the Lutheran church. The Separatists arose as a religious body in the kingdom of Wurtemberg; and in 1815 a number of them left Germany with a capital of only £1200, and formed the settlement of Harmony in the state of Ohio. From this the colonists derive the name of Harmonists; but they are better known by that of Rappites, applied to them from that of their founder, a most pious, benevolent, and simple-hearted man. Their attempt has been equally successful with that of the Shakers; and the value of their landed property was estimated a few years since at £340,000, exclusive of a considerable sum invested in the American funds. In their religious views, as well as in their social economics, the Harmonists seem to form a link between the Moravians and the Shakers. They do not hold the views of the latter society on marriage, but that institution is placed among them under such restrictions as tend to check what they consider would be an undue increase of population. Like the Shakers, however, they hold all their property in common.

In the spring of 1817, about two hundred more of the Separatists, all of the humbler classes, left Wurtemberg with a very limited amount of capital, and embarked for Philadelphia. On their arrival in that city they nominated as their chief and agent a young man, who had gained their respect and affection during the voyage across the Atlantic by his superior intelligence, simple manners, and kindness to the sick. His name was Joseph Bimeler. He had been a weaver, and afterwards a school-teacher, in Wurtemberg; and his selection by those with whom he was associated to be their leader has done honour to their discrimination. He purchased for the emigrants, on credit, 5500 acres of land in a spot of great natural beauty in the valley of the Tuscarawas, in the eastern portion of the state of Ohio; to which they removed in the latter part of the year, and fell to work in separate families, erecting bark-huts and log-shanties, and providing for their immediate wants. Strangers in a strange land, girt round by the pathless prairies, and in the dreary season of winter, the first months of their settlement passed wretchedly enough, and they endured much

suffering and privation. For a year and a-half they worked in separate families, and made little progress in acquiring the comforts of life; then they resolved to follow the example of Rapp, and endeavour to establish another Harmony in the wilderness by the power of associated effort. A constitution was adopted, based upon principles strictly democratic, under which they have lived to the present time. Their principal officers are three trustees, in whom their property is vested, and upon whom devolves the management of the internal affairs of the community; and an agent, who manages all their relations with the outward world.* These officers are elective—females voting as well as males; the trustees are elected for three years, one retiring annually, when his post is filled by a new election. Like the Harmonists, they hold all their property in common.

For several years the colony struggled with difficulties, but these were gradually surmounted by the economy, industry, and integrity of the plodding and frugal Germans, and now they are as wealthy as the Shakers and Harmonists. Their property, consisting of 9000 acres of land, a woollen factory, two iron-foundries, an oil-mill, two flour-mills, a saw-mill, a tannery, farming stock and implements, and money invested in the American funds, was valued three years since at nearly half a million of dollars. Their numbers have slightly diminished since 1817, in consequence of the poverty which environed them in the early years of their settlement, which prevented the contracting of new matrimonial alliances, and the loss of fifty persons during the prevalence of the cholera in the summer of 1832. Their village, named Zoar, contains twenty-five dwelling-houses, many of them built of logs, and nearly all unpainted, so that the place has far from a prepossessing appearance. They are substantial, however, and comfortable inside. The barns are of large dimensions, and, like the rest of their buildings, are grouped without order, rearing their brown sides and red-tiled roofs above the foliage of the fruit-trees which partially conceal them.

The sounding of the horn calls the Economists to their labours at day-break. They work in groups, in a plodding, but systematic manner, which accomplishes much. Their agricultural implements are of the simplest and most primitive description; their scythes, like those used in the south of Germany, are short and unwieldy; and their hoes clumsy and heavy. The women perform their share of field-labour in common with the men: they hoe the corn and reap it; they make hay; and they even clean out the stables, and wheel away the manure in barrows. The costume and language of Germany are still retained among them. They are seen about the village with their rude implements of labour over their shoulders, their contented-looking countenances shaded by broad rimmed straw-hats; or with their hair combed straight back from their foreheads, and tied under a coarse blue cotton cap, carrying upon their heads baskets of apples or potatoes. Systematic division of labour is a prominent feature in their domestic economy, though it is far from having reached its attainable perfection among them. They have a common washhouse, a common bake-house, and a common nursery for all the children over three years of age; those under that age remain with their mothers. The closest economy regulates all their domestic and industrial affairs.

In common with the Moravians and Shakers, the Economists have but little mental development among them. Elementary instruction is given

in winter to the children in German and English. They are a simple-minded, artless people, unacquainted with the outer world, and taking no interest in the great social and political questions which agitate it. Their morality is of a high order; and not one among them has ever been convicted of any offence against the laws of the land in which they live. The little log-church of their community is often filled on winter evenings, and twice on the Sabbath. Like the Harmonists, they use neither prayers nor thanksgivings; they do not baptise, or observe the sacrament of the Eucharist; and, like the Jews and Mohammedans, they abstain from pork. Their morning service consists of vocal and instrumental sacred music, in which a piano is used, with the reading and explanation of some portion of the Old or New Testament. The evening service differs from it in the substitution of catechising from a German work for the perusal and exposition of the Scriptures.

The Fraternalists, sometimes called Restorationists, are a social and religious sect of later origin than the Separatists of Germany, from whom have sprung the communities of Harmony and Zeal. The sect and community of the Fraternalists were founded by Adin Ballou, a Universalist preacher of some note in the state of Massachusetts, and a man personally esteemed for his many excellent qualities. They are few in number compared with the Shakers and Germans, and occupy a house at Mendon, to which are attached two or three hundred acres of land. They hold all their property in common, and apply what is called the non-resistance test to all who desire to join them—namely, they are required to sign a declaration that they will not, under any circumstances, enter the army, navy, militia, or constabulary, commit any assault or other violence, or maintain any action at law. The Fraternalists are free from debt—an incubus which has extinguished most of the Fourierist experiments in America; but whether they will ever attain that degree of prosperity which has attended the communities of the Shakers and Germans remains to be seen.

Taking the social sects and their founders in the order of time, we next arrive at St Simon, whose new religion and new organisation of society dazzled the active intellects of France more than any which have since been submitted to public opinion in that or any other country. Henri St Simon had served under Lafayette in America, and had afterwards travelled in Spain, England, Germany, and Switzerland. He early conceived that idea of social amelioration which was the dream of his life; and in his first work, the 'Letters of an Inhabitant of Geneva,' he proposed a plan for the popular remuneration of men of learning and genius, by means of a national subscription apportioned annually among those who attained the highest number of suffrages. In developing this plan, he divides mankind into three classes, and seeks to prove to all, by arguments appropriate to each, the excellence of the proposed mode of remuneration. He proposed to transfer spiritual affairs from the clergy to the learned, and to vest the direction of the civil government in the proprietors of land, from which class the 'grand chiefs of humanity' should be chosen by universal suffrage. His next treatise was upon the progress of science since the Revolution, but the tendency of his thoughts was always more towards the future than the past; and the leading idea of this work was the impulsion of men of

learning to the reconstruction of society. He denounced the war as inimical to social progression, and advocated the institution of an intellectual magistracy, one of the fundamental principles of his social system. In his latest work, the 'New Christianity,' he contends for a new religious reformation, and asserts that religion should be of a progressive nature; that it cannot perform its mission in canonical shackles; and that it should receive as much impulsion from society as it gives to it, and act upon the age as the age reacts upon it. It should be the mission of Christianity, he maintains, to modify itself according to the manners, the country, the people, and the age, and to preserve nothing immutably and eternally save the divine precept, 'Love one another.' To this St Simon added, 'Religion should direct society towards the grand design of the amelioration, the most rapid possible, of the condition of the class the most numerous and the most poor.' After claiming the sacerdotal office, as he had before done the magisterial, for the men the most capable of contributing to the permanent wellbeing of society, he leaves the doctrine in an uncertain and speculative state, and loses himself in a cloud of brilliant ideas. The choice of the new priesthood and the organisation of the regenerated church he left an unsolved problem.

The critical portion of this work is one of profound study and discrimination. He attacks both the Romish and Protestant churches, charging upon the former the misdirected studies of the clergy and the vicious education of the laity; and upon the latter the adoption of an inferior moral code, the omission of a social organisation adapted for continued progress, and the neglect of those artistic refinements and illusions which had rendered such powerful support to the church of Rome. Christianity, he maintained, should be social as well as religious, and have its sensuous phase as well as its spiritual one. 'In attacking the religious system of the age,' said he to M. Olinde Rodriguez just before his death, 'people have really proved but one thing—that it is not much in harmony with the progress of the positive sciences, and they have done wrong in concluding that the religious system should disappear entirely. It ought only to place itself in accordance with the progress of the sciences.'

St Simon died May 19, 1825. The disciples whom he left were neither numerous nor wealthy; but M. Olinde Rodriguez being joined by MM. Bazard, Enfantin, Cerclet, Buchez, and others, a journal was established by association for the publication of articles on social science and industrial statistics. The times, however, were not favourable for the complete development of the St Simonian faith, and the writers of the school reserved their social and religious system for better times, confining themselves to the expression of individual opinions. The chief result of the publication of the journal was the gathering of a little knot of intelligent men round the nucleus formed by the immediate disciples of St Simon, and it soon became extinct. Having lost this means of publicity, they began to hold reunions and conferences, to organise correspondence, and to establish propagandist centres, and a system of widely-ramified affiliations. M. Bazard gave a complete exposition of St Simonism in a series of lectures; and the initiations of poets, artists, workmen, and students, increased in number every day. Among the new converts were MM. Armand Carrel, Carnot, Chevalier, Barrault, Duveyrier, and others, who, with MM.

Rodriguez, Bazard, and Enfantin, afterwards constituted what they termed the Grand College.

The Exposition of M. Bazard commences by deploring the evils of society throughout Europe; he sees everywhere discord and antagonism—nowhere concord and cohesion. Having taken a survey of present society, he proceeds to indicate another order of social relations, 'which should unite divided mortals, making them march with peace and love towards a common destiny, and giving to society, to the entire world, a character of union, of wisdom, and of beauty.' The author then surveys the history of society, founds the St Simonian system on the science of human life, and discovers in the nature of humanity an irresistible tendency towards universal association. He next denounces the wrongs which an imperfect civilisation inflicts upon the poor; and to destroy the usurpations of conquest and the privileges of birth, he proclaims the St Simonian formula—'To each according to capacity, to each capacity according to works.' He then examines the constitutive law of property, and demands the abolition of heritage, and the establishment of the common family.

The second part of the Exposition was devoted to the religious and moral system of St Simon. Its head was declared to be God, but the definition of the divine character and attributes opened a wide field for controversy and future schism. In it the pantheistic system of Spinoza was revived and reproduced. St Simon was declared to be the Messiah of the new religion—it was he who had organised the religious system, as the material had been organised by Moses, and the spiritual by Jesus. It was the mission of St Simonism, therefore, to fuse together the material and the spiritual, to put an end to their antagonism, and sanctify the one by the other. It admitted no longer a church and a state, but fused them into one; it dethroned alike the emperor and the pope, to set up the sage in the place of both. The St Simonians meditated a theocratic and associative constitution, and divided mankind into three classes—sages, artists, and workmen, each subject to its chiefs. The religious chief was to be the sole legislator and judge, and the distributor of the common wealth of the family, receiving it as sole inheritor, and rendering it to each and all according to their formula of remuneration. There were insurmountable difficulties in the way of the realisation of this constitution, but it had many attractions for the imaginative, and the workmen were fain to embrace any scheme which promised amelioration of their condition.

It was not until the Revolution of 1830 that the St Simonians became a conspicuous sect; then they set on foot a journal devoted exclusively to the dissemination of their views, and nominated MM. Enfantin and Bazard the co-pontiffs of the new religion. A discussion in the Chamber of Deputies, in the course of which they were accused of preaching the community of goods and of women, called forth a pamphlet from M. Bazard, in which he denied that the St Simonians held such doctrines; 'because,' said he, 'they believe in the natural inequality of men, and regard that inequality as the basis even of association, and as an indispensable condition of social order.' What they advocated, he said, was simply the abolition of the privileges of birth, and consequently of heritage, and such an industrial organisation as would render 'the task of each the expression of his capacity, and his riches the measure of his works.' With regard to woman,

it was not promiscuity which they advocated, but a more sacred marriage law, and her complete emancipation.

They had now taken a large house in Paris, where they established the St Simonian family, and reduced to practice their views on association and industrial organisation. Their numbers continuing to increase, they established two preparatory colleges, from which they drew the members of the supreme college. Lectures and pamphlets aided the propaganda, and departmental churches were established at Toulouse, Montpellier, Lyons, Metz, and Dijon. But just as the religion had reached the zenith of its notoriety, schism entered the church through a rupture between MM. Bazard and Enfantin. The latter dreamed of a universal St Simonian family, and expected to realise in his lifetime complete supremacy, a universal religious pontificate and political tribuneship, and the former recoiled from his colleague's adventurous flight. A rupture ensued, M. Bazard resigned, and the St Simonians divided; M. Pierre Leroux, who had lately joined them, adhering to the retiring chief, who was succeeded by M. Rodriguez. The seceders alleged that the views of M. Enfantin on the emancipation of woman tended to promiscuity, and the scandal thus brought upon the religion damped the popular ardour in the height of its excitement. There was an arrest of proselytism, the income diminished, the bank became low, and the real property possessed by the St Simonian church was not easily convertible into cash. An attempt was made to raise a capital by means of a joint-stock association; but it did not succeed, and the St Simonian formula for the organisation and remuneration of labour was not realised more happily. Four thousand workmen had been affiliated, and worked at their respective occupations in special houses on account of the church; but the doctrine had no substantial hold upon their minds, and the promised amelioration came not.

Yet in spite of their financial difficulties, the falling off of the workmen, and the secession of many of their ablest leaders, the remaining St Simonians continued to disseminate their doctrines, until their demand of universal suffrage attracted the notice of the government, and a body of police was sent to eject them from their principal lecture-hall, which was henceforth closed against them. The house in which the St Simonian family had established itself was also entered by the police, and some papers there seized formed the basis of a criminal prosecution. This, the closing epoch of St Simonism, abounded in disgraces. M. Rodriguez repeated the charge of advocating sexual promiscuity, before made against M. Enfantin, and the justice of which the latter had rendered no longer doubtful, and separated from his colleague, calling the faithful to him as the immediate disciple and direct successor of St Simon. The abruptness of this rupture, and its inopportunity on the eve of a judicial prosecution, gave a severe blow to the movement. The journal was discontinued, the workshops were closed, and the St Simonian family dissolved. From this time the sect engaged but little of the public attention, and does not appear likely ever to renew the excitement and the notoriety of its palmy days.

While St Simonism was fading from the popular mind, which it had dazzled for two years like a brilliant but evanescent meteor, sinking into obscurity through the force of dissension and schism on one side, and

governmental prosecution on the other, a new theory of society organisation was beginning to act upon imaginative minds and benevolent hearts dissatisfied with the existing system of society. Charles Fourier, the son of a humble shopkeeper at Besançon, himself a traveller on commission through France, Germany, Belgium, and Holland, afterwards a private soldier in a dragoon regiment, and eventually clerk to a merchant, had published in 1807 a work called the 'Theory of Four Movements.' As a theory, it was imperfect and incomplete—an indication of the author's views rather than their development; probably he had then scarcely matured his society system in his own mind. The bent of his mind is seen, however, in his criticisms on present society, and his imperfect sketches of industrial organisation. God, man, the universe, cosmogony, all find place in its pages; but every subject is left in an incomplete and unsatisfactory state—the mere outlines of a grand picture which in all probability Fourier himself could not at that period have filled up. His principal work did not appear until fifteen years after the 'Theory of Four Movements.' In the 'Treatise on Association' he follows up his acute criticism on the errors and prejudices of old society, and constructs a new social system more in accordance with what he deems the laws of nature and the universe. With unity of system for his basis, and universal analogy for his guide, he sets out with harmonising the passions, and proceeds to solve the great problems which social science, ethics, and theology, present to the mind of the moral cosmogonist. Improving upon Babeuf, he seeks to render labour attractive by overcoming, by scientific and mechanical appliances, everything which can make labour repulsive; and through man's industry, aided by science, to subdue the earth, to attemper the icy atmosphere of the poles and the burning simooms of the equator, to fertilise the ocean-sands, to render cultivable the snow-covered steppes of Siberia and the arid deserts of Africa, and to raise magnificent palaces amid the beautiful gardens with which they should be covered, not for crowned monarchs, but for all the family of man. Idleness would be unknown where labour is made attractive; and crime would cease where the means of subsistence by moderate exertion are placed within the reach of all.

The rehabilitation of the earth had been idealised before by Shelley, and had entered into the views of the St Simonians. Science may yet accomplish much in the direction indicated: in attracting moisture by planting trees—in protecting from hail-storms, as proposed by M. Arago—in accelerating germination by electric agency—in draining fens and marshes by the steam-engine—and in further applying the science of chemistry to the fertilisation of the soil; but Fourier, like Shelley, has prophesied much more than the present state of the sciences warrants us in anticipating, and we must regard his glimpses of the future as the brilliant dreamings of an imaginative mind. He foresaw that his system would be regarded as an impracticable theory—a Utopia never to be realised; and he earnestly desired to submit it to the test of practice, and to find some benevolent and wealthy individual to venture the experiment. He assures riches and undying fame to those who would become the founders of the first Phalanstery, or Harmonic Industrial Colony, in which there should be neither poor nor rich—where the sick and infirm would find a comfortable asylum—where industry would be scientifically and harmoniously organised—where each individual would

work for himself, according to his own taste, and vary his occupation as often as he pleased—where all the children would be well educated—where the hearts and minds of all would be free and unshackled, and grateful man would incline himself before his Creator, who has reserved him for enjoyments unknown in any past stage of society. Perfect freedom and boundless prosperity would there develop all the noblest sentiments of humanity, and happiness would be increased by the universality of its diffusion.

No one responded to Fourier's appeal. Mistaking the cause of this negative result, he concluded that his grand work was too elaborate and extensive for the study of his theory; and to remedy this, and facilitate its comprehension, he resolved to write an abridgment, containing nothing but what had a direct relation to practical operations. With this view he published his 'New Industrial World,' which detailed a development of his plans for the establishment of phalansteries—a word which he derives from the Macedonian phalanx, to convey the idea of strength and organisation. Like Plato and St Simon, he divides mankind into three classes: the workmen, the capitalists, and the artists; and on the three bases of labour, capital, and talent, he founds his social and industrial system. He divides labour into works of necessity, of utility, and of pleasure, and proposes to remunerate them in the same order—awarding to workmen of the first class more than would be received by those of the second, and to the latter more than the share assigned to those of the third class. His mode of distribution is the division of the capital of each association into twelve parts—of which five are allotted to the workmen, four to the capitalists, and three to the artists. In this arrangement it will be seen there is a closer approximation to existing social relations than in the system of St Simon, far removed as that was from the Communitive institutions of the social republic idealised by Babeuf. The capitalist had no existence in the latter system, and in the St Simonian hierarchy was only represented in the sage, in whom was vested the property of the common family.

Like his predecessor St Simon, Fourier died in indigence and obscurity: his decease took place in the winter of 1837. His disciples soon became numerous both in France and Belgium; and his principles of social organisation and industrial remuneration were widely adopted in the United States. Even in this country they had at one time their representative in the press, and they have still their advocates here among men of moderate views, who, regarding a change in the relations of society as inevitable, prefer Fourier's plans to those of more levelling tendencies. The maintenance of vested privileges, and individual property and interests, were points which recommended them to many who regarded those of Babeuf and St Simon as destructive of social order. The absence of the pantheism of the St Simonian system, and the materialism of that of Owen, also tended to obtain favour for Fourierism among minds in which the religious sentiment was strongly developed. To these various causes must be ascribed the progress of Fourierism, which, in a few years after the death of its founder, numbered its disciples in France alone by many thousands, and which still maintains its position, while the new religion of St Simon has sunk into nearly complete oblivion.

In the autumn of 1841, 150 of the most intelligent artisans of Paris, who had imbibed the views of Fourier, emigrated to the Brazils, under the

guidance of Dr Mure, an enterprising, benevolent, and enlightened man. On the arrival of the colonists at Rio Janeiro, Dr Mure was introduced by the minister of state to the emperor, who approved the objects of the association, and presented them, with an extensive tract of uncultivated land, upon which to reduce their system of attractive industry to practice. The spot selected for the experiment was the peninsula of Du Sahy, and in twelve months after their arrival, the settlers had erected temporary habitations and workshops, cleared several hundred acres of land, harvested their first crop of corn, made a road four miles in length, and constructed eighteen bridges. Nearly 400 more workmen followed at various times during 1842, and the inspectors appointed by the Brazilian government reported favourably of the progress made by the associated settlers, but no account of the present position of the colony has reached this country. In 1843 a similar settlement was founded in Guatemala by an association of workmen who had emigrated from Belgium, and received from the government of Guatemala a grant of 12,300 acres of land, upon which they proposed to establish manufacturing and agricultural phalansteries. In the preceding year the Fourierists had commenced an experiment in France, under the superintendence of Mr A. Young, a warm advocate of their views, who purchased, at an expense of £64,160, the estate of Cîteaux, twelve miles from Dijon, on the main road from Paris to Geneva, and having a communication with numerous adjacent towns by means of the roads which intersected it. The property consisted of a park, in the centre of which was a splendid mansion, four farms, brick-fields and kilns, extensive workshops, a large building used as a manufactory for refining sugar, several cottages, two flour-mills, and a large saw-mill. The extent of the land was 1300 acres, and the soil was extremely fertile, and the situation favourable for the disposal of the produce.

Two hundred persons were located upon this estate, under a form of association permitted by the laws of France, by which no member is liable for more than the amount of his own shares; but notwithstanding the extent of the undertaking, the eligibility of the site, and other concurrent advantages, the scheme proved a complete failure, and in a few years was abandoned. The same fate has attended most of the numerous phalansteries established during the last ten years in the United States, and those which still remain are involved in debt, and struggling with difficulties. It seems, indeed, that the preference for Fourier's plan evinced by many rests on fallacious grounds, and that community of interests is the only basis on which association can be long or beneficially maintained.

Contemporaneously with the Fourierist movement in France was that of the Socialists in this country, which originated with Mr Robert Owen, formerly a cotton-manufacturer at Cromford, and subsequently at New Lanark. After travelling in France, Belgium, Switzerland, and America, and submitting his views to the governments of Prussia, Holland, and the United States, Mr Owen commenced the publication of his book of the 'New Moral World,' in which he developed his opinions on social and political economy, religion, ethics, metaphysics, and education. He criticises present society much in the style of St Simon and Fourier, but the new system which he would substitute for it differs widely from those of his

French cotemporaries. He proposed the establishment of agricultural and manufacturing associations, on the principle of community of interests; but though he enters largely into the statistical details of his plans, his views on social and industrial organisation are vague and incomplete. He is strictly practical and utilitarian, and there is nothing in his works of that brilliant imagination and those poetic conceptions which characterise the works of St Simon and Fourier. A unitary habitation should shelter the members of each of his communities, and all the appliances of science and mechanism should be applied to the abridgment of labour, and the consequent increase of leisure for intellectual culture. Education should be in common, and each community should have a common kitchen and dining-hall, and a common nursery for the younger children. Land, labour, capital, and skill, being the elements of wealth, were to be combined in each of the proposed communities, in which, contrary to the views of the political economists of the school of Ricardo and J. R. Say, manufactures were to be subordinate to agriculture. The objects of wise social arrangements were declared to be the production and equitable distribution of wealth in the manner most beneficial for all, the education of all in such a manner as to insure the equal and harmonious development of all the faculties, and the attainment of a wise and enlightened government, calculated to watch over and promote the common interests of every member of the community.

These economical views were mixed up with those metaphysical disquisitions upon free-will and necessity which have always been such a fruitful source of controversy among moral philosophers. The doctrine of the necessity of human actions, and consequently of man's irresponsibility, which in various forms had entered into the religious systems of the Fatalists, the Antinomians, the Pelagians, and the Necessitarians, was reproduced by Mr Owen, and made to form the basis of his social system. The character of man, he maintains, is formed by the union of two forces: first, by the organisation derived from his parents at his birth, and afterwards by the influence of exterior circumstances acting upon his organisation; and his organisation reacting upon circumstances, from the cradle to the grave. Man is therefore virtuous or vicious, intelligent or ignorant, religious or irreligious, not as he wills to be, but according as his organisation is inferior or good, and as the moral and material conditions by which he is surrounded through life tend to depress or elevate him in the scale of humanity. This view of the formation of character necessarily involved the doctrine of man's irresponsibility for his actions, they being the inevitable result of circumstances entirely beyond his control; and praise and blame, reward and punishment, were declared to be alike irrational. In the communities which he proposed to establish, man would be placed amid the circumstances best calculated to render him virtuous, intelligent, and happy; and each succeeding generation would progress in rationality and intelligence, and have its capacity for happiness thereby enlarged.

These views were propounded by Mr Owen as early as 1816, and he continued to write and lecture upon his system at various periods afterwards; but no society was formed for their dissemination until 1835, and the 'Book of the New Moral World' was not published until seven years later. Few rallied round the society upon its first establishment, and these were chiefly working-men; but in the following year the system of sending

out itinerant lecturers was adopted with much success. A weekly journal was set on foot, the lecturers increased in number, and in a few years the disciples of Owen amounted to many thousands. In 1840 the attacks of the Bishop of Exeter and Lord Ashley upon the Socialists, from their places in parliament, had the effect of elevating the society to a prominent position in public opinion, and materially aided its progress, by the manner in which its principles and objects were made the theme of universal comment by the press. The opponents of the system grounded their attacks upon its alleged immorality and irreligion, charging the Socialists with disseminating atheistical opinions and advocating promiscuous intercourse. The latter charge was entirely without foundation, the views of Mr Owen on marriage amounting to its recognition as a civil contract merely, and the extension of the privilege of divorce to all classes of the community. With regard to religion, that of Socialism was declared in the constitution of the society to be 'a knowledge of the unerring and unchanging laws of nature, derived from accurate and extended observation of the works of the great Creating Power of the universe, and the practice of charity for the feelings, convictions, and conduct of all men;' and that all should 'have equal right to express their opinions respecting the Supreme Power of the universe, and to worship it under any form, or in any manner, agreeable to their consciences—not interfering with equal rights in others.' At the same time, it must be admitted that most of the Socialists engaged in the dissemination of the principles had adopted deistical or atheistical opinions, and that their assaults upon religion were sometimes of a nature to call forth the animadversions of Mr Owen, who reprehended them as inconsistent alike with the metaphysical principles upon which his system was based, and with the feeling of charity with which those principles should inspire his disciples.

In 1841 the society commenced its practical operations upon 1200 acres of land in Hampshire, upon which a large building was erected in the following year, and called Harmony Hall. It consisted of three ranges or compartments, of which the first contained the library, and reading, conversation, and dining-rooms, and above these the sleeping apartments of the unmarried persons, with well-devised arrangements for the separation of the sexes; the second, or central range, contained the offices of the superintendents and the storehouses, above which were the dormitories of the married people: and the third contained the school-rooms and baths, with the sleeping-apartments of the children over them. The culinary arrangements were admirable, and the entire building was heated, ventilated, and supplied with hot and cold water, according to the latest improvements which science has enabled the present generation to effect. Fifty or sixty persons were draughted from the Socialist body, and located at Harmony Hall, where they engaged in cultivating the land, and working at various mechanical occupations. For a time all went on well, and the experiment began to attract the attention of the press; but a feeling of dissatisfaction gradually arose in the Socialist body, both within and without the community. Those located at Harmony Hall claimed the management of their own affairs, and the election of the governor, which the society could not concede without endangering the interests of those who had invested capital in the experiment; and the general body was eager to enter into com-

munity, and felt dissatisfied that the outlay of more than £30,000 should have effected no larger result than the location of about fifty persons. These circumstances, added to the pressure of pecuniary difficulties, impelled the society upon a retrograde course, and in July 1845 it became bankrupt: all its property was sold, its weekly organ was discontinued, and the society itself shortly afterwards became extinct.

Socialism, however, has not existed for nothing: though it has failed in practice as an associative system, and we hear no more of the name, it has not ceased to operate indirectly in various ways, and we owe to its agitation the establishment of co-operative stores, corn-mills, bakehouses, and coal clubs, public baths and washhouses, model lodging-houses, ragged schools, and societies for promoting sanitary reform and improving the dwellings of the poor. These things arose out of the conviction that was gradually forced upon the public mind of the duty and necessity of raising the humbler classes of society from the ignorance and material wretchedness to which attention was so loudly called by Mr Owen and his disciples. Moreover, they gave an additional impetus to that keen desire for the acquisition of knowledge which sprung up coevally with the Socialist agitation, and which manifested itself in the establishment of Halls of Science in most of the large towns, which are estimated to have cost the Socialist body more than £20,000, and to have been attended at one time by thirty thousand persons. Most of these have since been converted into lecture halls, unconnected with any peculiar religious, social, or metaphysical principles. Though the Socialists have ceased to exist as a separate body, it would be wrong to infer that they have abandoned their views upon social economy; upon the ruins of the Rational Society several others have been established with objects somewhat similar, but for the most part unconnected with any theological, political, or metaphysical peculiarities. Some of them emigrated to America in 1843, and formed a colony on the principle of community of interests at Mukwonago in Wisconsin. In 1845 a number of them emigrated to Venezuela, with the view of establishing there similar communities upon land granted them for the purpose by the government of that state. Many more have joined the various co-operative land and building societies in this country. The association of Fraternal Democrats is, as its name implies, more political in its tendencies, but takes its place among the numerous social ideologies of the present age by the declaration, as one of its fundamental principles, that the land should be the common property of the people. It confines itself to propagandism, and maintains a correspondence with the similar societies and clubs in France, Belgium, and Germany. A detailed account of these does not come within the scope of the present Paper; they are only mentioned here as an evidence of the persistency with which the Utopian idea is constantly reproduced, and the diversity of forms which it assumes.

Other social sects, however, have sprung up in the British islands, which, like the Socialists, have identified themselves with religious or metaphysical opinions peculiar to themselves. These are the Concordists, the White Friends, and the Communist Church. The first of these originated in 1842 with the disciples of J. P. Greaves, a psychological mystic, who died in the early part of that year: they formed a communitive association, under the name of the Concordium, at Ham in Surrey, but they

never became numerous, and the community was dissolved two or three years afterwards. While the Socialists taught that the human being must be placed amid superior conditions, in order to acquire a superior character, the disciples of Greaves maintained that it was too late to perfectise the present generation, as no degree of intellectual development, or any other external conditions, could possibly repair the defects of birth. Society, according to them, could only be regenerated individually, not in masses; and the process must be internal, not external—directed from the centre upon the circumference, and not from the circumference upon the centre. Associated interests and unitary habitation were only adopted by them as a means of attracting minds intelligent and loveful, that by them society might be leavened, and an impetus given to the diffusion of those truths through which its regeneration was to be effected. Celibacy was recommended until the nature of the individual had become regenerated, and, in the future, marriage was to be placed under restrictions similar to those which prevail among the Harmonists. To rehabilitate the fallen nature of man, self-denial and asceticism were enjoined; and in their food and clothing they emulated the simplicity of the Golden Age. They wore their hair and beards long; the outer garment of the men was a tunic of a dark-chocolate colour; they slept on hard mattresses, and made frequent use of the cold bath; their food was bread, vegetables, and fruit, and their drink water. The fruits by all of them, and the vegetables by many, were eaten in the raw, or, as they regarded it, the natural state—the process of cooking depriving them, as they believed, of their etherealising properties. Each in turn read to the rest during their simple meals, and on Sunday afternoons scientific lectures were delivered in the school-room.

Similar in some respects to the Concordists, but approximating in others to the Shakers, are the White Friends, Irish Separatists from Quakerism at the commencement, but recruited from other sects since they adopted the community of goods. The sentiment of religion is as strongly developed in them as in the Shakers, and, like them, they set little value on mental attainments. Their religious doctrines are little different from those of the sect from which the founders of the body sprung, but in practice they sometimes run into fanaticism, after the manner of George Fox. They derive their name from wearing white and undyed garments; the men wear their beards long, and go bareheaded—many of them go barefooted likewise. The women have their hair neatly braided, and none of them wear caps. They occupy a large house, formerly a hotel, at Usher's Quay, Dublin, and a noble mansion called Newlands, formerly the residence of Lord Kilwarden, about five miles from that city; to the latter 180 acres of land are attached. As among the Shakers, all their furniture is of the most primitive description, and they agree with the Concordists in the adoption of a vegetable dietary. They hold their property in common, and regarding themselves as one family, use only the baptismal name.

The Communist Church was founded in 1843 by Mr Barmby, a young man of considerable talent, who had imbibed the extreme communitive views then and since agitated upon the continent; and had been led, by the success of the Shaker and Harmonist communities, to regard religion as the true basis of the communitive life. The ten fundamental tenets of his church are:—That God is infinite and eternal, the universal mind and uni-

versal matter; that God is the communal parent of all mankind; that the human race inherit all the properties of the divine nature; that all mankind have equal capacities, present appearances to the contrary resulting from the want of communal education; that these capacities should be communally developed; that the human race have common wants and rights, the expression of which is summed up in universal suffrage; that all mankind have common powers, present appearances to the contrary resulting from the want of a communal organisation of industry; that these powers should be communally exercised; that the human race, as co-heirs of God, should possess and enjoy in common; and that the consummation of the preceding doctrines would be the salvation of universal humanity. The pantheistic tendencies of St Simonism are here reproduced, and with this system its founder reconciles the doctrines of every other church and sect. Communism is announced in his writings as the continuation of Christianity, and as a complete system of politics, societetics, ecclesiastics, and domestics. Mr Barmby's style, like that of Thomas Carlyle and J. P. Greaves, is one peculiar to himself: new words occur in every sentence of his works, and are regarded by him as necessary for the expression of new ideas. It is extremely florid, and evinces an imaginative mind and an enthusiastic temperament: he seems to regard himself as the Messiah of a new dispensation, and his conceptions of his ideal future are grand and often highly poetic. He anticipates, like Shelley and Fourier, the rehabilitation of the earth, and dreams of magnificent communistries under the sunny sky of Syria, in which the happy commoners dine off gold and silver plate, in superb banqueting halls, furnished with splendid pictures and luxurious couches, and enlivened with music. His 'Book of Platonopolis,' of which only a few chapters have been published, is a vision of the future, in which he supposes himself conducted by a venerable man to a grand communism, built in the form of a crescent, in which the pillars are of marble and porphyry, and from the summit of which floats the green and sun-embazoned banner of Communism. Steam-cars convey the commoners from one communism to another as often as they desire a change of residence, and when they wish to vary the mode of travelling, balloons and aerial ships are ready to convey them through the air. Every communism resembles an Oriental palace, and the whole country is like a well-cultivated garden; Platonopolis, in short, is an Atlantis, or City of the Sun, improved by modern science, and adorned with all the conceivable productions of genius in the department of the fine arts.

The social ideologies which remain to be noticed are those which, during the last twenty years, have taken such hold upon the public mind in Central Europe, particularly among the working classes, and which latterly have mingled with their ideas of a perfect political system. We come now to the successors of Babeuf—to those who have discarded the societary theories of St Simon and Fourier, bold innovators as they were, as approximating more closely to the present system than to that of pure equality, by which they would supersede it; and numerous as are the modifications of Babeuf's idea of a social republic which the period under review has produced in France, they all seem resolvable into three, of which the heads are M. Cabet, the Abbé Constant, and M. Proudhon. The 'Travels in

Icaria' of the first is the text-book of his school: it is a description of an imaginary model republic, illustrating the author's ideas of perfect democratic equality. He supposes an English nobleman to be so much interested by the description given to him by a friend of the government, institutions, and customs of Icaria, that he undertakes a journey to that country with the view of becoming personally and more fully acquainted with them. The Icarians have abolished among them the use of a circulating medium, and indeed have ceased to require any, since they neither buy nor sell. Foreigners are not allowed to take money into the country with them; but on paying to the Icarian consul a sum proportionate to the time they propose to remain in the country, they receive a passport which franks all their expenses, and admits them to all public buildings and places of amusement; and when they leave Icaria, their money is restored to them, if they have brought more than is required. All property is in common among the Icarians; but the unitary habitation, which is associated with this institution in the systems of Adin Ballou, Robert Owen, and Mr Barmby, is discarded by M. Cabet for streets and squares. The streets of Tyrana, a seaport-town, are described as straight, wide, and clean, with colonnades on either side, and perfectly regular in their architecture. 'I was delighted,' says the imaginary traveller, 'with the elegant houses, the fine open streets, the excellent taste, displayed in the arrangement of fountains, and with the magnificence of the public buildings and national monuments. The public gardens and promenades were enchanting; and, on the whole, Tyrana was the most beautiful town I had ever beheld.' Everywhere he sees the evidences of wealth and comfort, and every available application of science to produce them. Railways are numerous, and atmospheric propulsion is anticipated. Agriculture has been brought to great perfection in Icaria. 'Every yard of ground was cultivated, and appropriated to some useful purpose. The whole country seemed covered with the green harvest, having interspersed vines, flowery arbours, groves, plantations, farm-houses, and picturesque villages. Here and there flocks were scattered over the meadows, and groups of husbandmen enlivened both hill and dale. The road was extremely level, and in excellent order. The footpaths were continuous, and shaded with fruit-trees in bloom. We passed farms and villages, crossed rivers and canals; indeed the road seemed the continuation of the suburbs of a large town, or an avenue intersecting an immense garden.' The capital is approached by a wide avenue of poplars, and the eastern entrance is described as 'a gigantic monument of art.' From the extremity of the avenue, which is a gentle decline, a fine view is obtained 'of the thousand pinnacles of the city, and two immense colonnaded palaces towering above all.' The government of Icaria is a pure democracy, and its citizens are remarkable for their intelligence, the urbanity of their manners, and the respect in which they hold the female sex.

The disciples of M. Cabet are very numerous, and resemble the Socialists in the inculcation of universal charity and fraternity, in desiring to carry out their views by peaceful and constitutional means, and in their opinions on marriage and divorce. In one respect, however, M. Cabet is the moral antipode of Robert Owen: the Icarians have a priesthood and temples of religion, and the founder of the system constantly contends that Christi-

anity is Communism, and the latter but another name for the former. His disciples are distinguished from those of M. Proudhon and the Abbé Constant by the denomination of Icarians. Two or three hundred of them emigrated about eighteen months since to Texas, in order to found the social republic of Icaria; but most of them appear to have been totally unfitted for such an enterprise, and many of them have returned to their native land in disappointment and disgust. M. Cabet held the office of procurator-general under the government of Louis-Philippe; and though, like all innovators, his character has been variously represented, those who can separate the man from his principles cannot fail to appreciate the sincerity and benevolence of the former, however much fraught with danger to society they may consider the latter.

The Communism of the Abbé Constant differs little from that of M. Cabet, but the respective means by which they propose to attain the common object place a wide gulf between them. While the latter inculcates feelings of charity and brotherhood, and looks to peaceful and legal means alone for the actualisation of his system, the former discourses in a fierce and warlike tone, and would establish the social republic by the pikes and muskets of the dwellers in the faubourgs. To this party belong Barbes and Thoré, and the Icarians were assailed and vilified by them for propounding their scheme of emigration on the eve of the Revolution of February 1848.--The third section into which the French Communists may be divided is headed by M. Proudhon, a compositor, whose disciples are numerous among the working-classes, but lack the organisation of those of M. Cabet. His views are also more vague and cloudy, and his tone is often as violent as that of Thoré; he is a materialist, moreover, and his anti-religious opinions are as daringly avowed in his works as those of Shelley in his 'Queen Mab.' He deals largely in paradoxes, and often loses himself in a labyrinth of metaphysical reasoning. Between MM. Proudhon and Cabet, therefore, there is as wide a distance as between the latter and the Abbé Constant; and the former is often engaged in an acrimonious controversy with both the Icarians and the almost extinct St Simonians on the merits of their respective systems.

The Utopias which remain to be described are the 'Re-establishment of the Kingdom of Zion,' and the 'Gospel of the Poor Sinners,' the former written by M. Albrecht, a native of Switzerland; and the latter by M. Weitling, a German, who imbibed the views of M. Cabet while working in Paris at his occupation of tailor. Both these works mingle religion with politics and social science, and bear some resemblance to the New Christianity of St Simon. In the first-named work, the social institutions of the Mosiac dispensation are blended with a system of Christian Communism; but the disciples of the author are few in number compared with those of Weitling, and are confined to the western cantons of Switzerland. Its style is prophetic, sometimes approaching that of the Old Testament and the author appears to be a man of considerable talent. The 'Gospel' of M. Weitling is a work more remarkable than even that of Albrecht, and created on its appearance a sensation equal to that produced in France by the publication of the celebrated 'Words of a Believer' of the Abbé Lamennais. Faith, hope, and love, are in it declared the cardinal points of the Christian system; and in a review of the acts and precepts of its Founder, it is main-

tained by M. Weitling that the Eucharist should be a love-feast—that Jesus abjured private family and private property—that he taught the abolition of punishments and of money—that he preached war and attacked property—and that the doctrines of the Gospel are those of liberty and equality, and the communisation of labour, property, and enjoyment. Though maintaining that the Founder of Christianity preached war, the author in another work expatiates eloquently upon its horrors, and the misery to which it gives rise; and it is probable that he makes a distinction between wars undertaken for the recovery of national independence, or for the political enfranchisement of the class to which he belongs, and those waged for foreign conquest or spoliation. He established in Switzerland many societies of German and Swiss workmen, which, under the veil of singing clubs, became propagandist centres for the diffusion of the principles enunciated in his works. In 1843 he was arrested at Zurich, tried upon charges of sedition and conspiracy, and after several months' imprisonment, was handed over to the government of his native country—Prussia—and obliged to serve in the army as a conscript; but he evaded the greater part of his term of service, and made his escape to England. He was regarded by his party as a martyr, and the principles which he had advocated spread more rapidly than before, not only in Switzerland, but throughout Germany. His general views accord more with those of the Fearians than of any other of the social sects of modern times, but are more deeply tinged than any with the politics of extreme democracy.

The persistency with which the Utopian idea has been reproduced through so many centuries, is regarded by some as a proof that the human mind revolves continually in a circle, constantly conceiving the same ideas; and by others as an evidence of the correctness of the principle upon which the idea is based. The progression that has been forbids us to entertain the first belief; and the second involves a problem which will be best solved by posterity. The social ideologies of the present day are, however, evidently the expression of a deeply-felt want, an aspiration after the beautiful and the intellectual, a feeling of sympathy for human wo; and while their authors, and those who adopt them, confine themselves to moral and peaceful means of propagating them, and do not suffer their zeal to mislead them into courses inimical to the continuance of order, we should respect their motives, however erroneous we may deem their opinions. In an age like the present, whatever of good may be contained in the systems that have been passed briefly under review, will not be lost; the criticisms of their authors upon present society may be useful in drawing the attention of legislators to many errors and abuses, the dust and cobwebs of the past; and their visions of the future may suggest many modifications applicable to the moral, mental, and material wants of the present generation. We dive for pearls into the depths of the ocean, and descend for gold into the dark-some mine; and we should not disdain to search for truths among dreams of Utopia and foreshadowings of the Millennium.

THE SPECULATOR:

A TALE OF MAMMON-WORSHIP.

ABOUT five-and-forty years ago, Mr Robert Oakley, merchant of Bristol, and otherwise a highly-respectable person, was enjoying the last afternoon remaining to him of his annual fortnight's respite from business among the cliffs and caves and downs of Freshwater, in the Isle of Wight. Mr Oakley was at that time a man of mature age. More than forty winters glittered in his sharp gray eyes; and the glossy blackness of his plainly-cut, well-fitting coat, the spotless fineness of his linen, his elaborately-brushed broad-brimmed hat, and highly-polished cork-sole shoes, plainly announced a person with whom the world went smoothly. It had been for some time blowing hard, and the wind was momentarily increasing in violence; but Mr Oakley, who was an enthusiastic admirer of sea scenery, with the help of a stout gold-headed walking-cane, resolutely stood his ground, and watched, with apparently untiring interest, the white-crested waves dash themselves in fierce pursuit of each other upon the shingly shore, or, where checked and hurled for an instant back by the Rock-Needles, leap and hiss in fierce derision above the summits of the vainly-obstructing masses, and sweep on as madly as before. Now and then a fishing-boat, or a larger vessel, drove past—in imminent danger, to his unpractised eye, of immediate engulfment, or of destruction on the iron shore; and a feeling of comfortable self-gratulation simmered at the merchant's heart, as the comparison of his own safety with the danger of those on board involuntarily but vividly suggested itself. At length a rapid change in the driving clouds overhead, from light fleecy strips to dark heavy patches, increasing in size and density, and the consequent quick ³⁻ ~~coming~~ ³⁻ ~~coming~~ of the atmosphere, warned him that the fitful gusts of heavy rain which struck his face so sharply were but the precursors of a violent sea-storm, from which it would be prudent to escape with all possible despatch. The light on the corner of the Wight shot forth over the fierce waters as he turned homewards, instantly followed by a vivid flash of lightning and a heavy thunder-peal; so that even in the opinion of the lately-delighted admirer of sea and shore sublimity, a more wild, desolate, and disagreeable scene than now dimly and fitfully presented itself could scarcely be imagined. Fortunately, however, he could not be,

he thought, more than about four or five miles from Yarmouth. Little more than an hour's smart walking would take him there, and then a change of apparel and a cup of tea would remedy and obliterate all inconveniences. Thus self-assured and confident, Mr Oakley strode manfully forward in his rugged, circuitous road, unconscious of the deadly peril lying in wait for him in that secure hour, and brief, undreaded path. While he is struggling along in the growing darkness and drenching rain, I shall have time to note down a few traits of his moral character—a knowledge of which is essentially necessary to an accurate appreciation of his past and future actions.

Mr Robert Oakley of Wine Street, Bristol, was known in that city as an *Irish* merchant—a designation applied in ports trading largely with the sister country to persons whose exports and imports are confined to Ireland. As much less capital is required in such a commerce than the merchant-princes, whose enterprise embraces the whole habitable globe, can boast of, its chief men take a considerably lower mercantile rank on mart and 'Change than their richer brethren. Especially in those palmy days of flourishing slave and sugar islands, the West-India merchant and proprietor stood high above his fellows, and nowhere more so than in the wealthy western metropolis of England. By no one were these magnates of commerce held in higher, more envious reverence, than by Mr Robert Oakley. 'How contemptible,' he had often, but more especially of late, bitterly reflected, 'how utterly insignificant are the poor twelve or thirteen thousand pounds—not certainly more than that—which the ceaseless industry of twenty of the best years of my life has enabled me to scrape together, compared with the colossal fortunes rapidly accumulated by men who, playing with vast ventures, frequently gain more, much more, at a single hit, than I do by a whole year of plodding perseverance and patient care!' As these thoughts gloomed across his mind, the true respectability of his position, his solid, if not extensive wealth, depending on none of the frightful chances which frequently sweep away at a blow the Aladdin fortunes of great speculators, dwindled in his estimation into coarse beggar-wrappings—useful, indeed, for the common necessities of life, but only to be worn with humility, almost with shame, in the presence of the robes and furred gowns of the really rich men of the world.

With such repinings cankering at his heart, it is not to be supposed that Robert Oakley had not frequently cast about for one of those great and lucky ventures, one of those Napoleonic strokes, whereby immense results, the natural reward of a lifetime of ordinary energy and success, are secured by one fortunate turn of the commercial dice. He was ever looking out for such an opportunity, but none had hitherto presented itself sufficiently free from *hazard* to induce him, however momentarily dazzled, to boldly venture his fortunes upon it; and up to the time we left him on the bleak cliffs of Freshwater, he had been able to boast that, though often sorely tried, he had successfully withstood temptation—a result he owed somewhat to his naturally cautious, nervous temperament, to his dread of awakening the wolfish instincts of greed he felt to be latent within him, and which, he knew, required to be but once alimented with suddenly, easily-acquired gold, to start into vigorous, untameable life; but more,

much more, than to any physical or mental qualities of his own, to the affectionate and wise counsels of his excellent wife, who, ever on the watch for such aberrations, gently drew him back from the contemplation of the deceptive shadow gleaming in the faithless waters, to the beaten paths of common sense and the safe retreats of home and competence.

Well had it been for Mr Robert Oakley had these frequent trials and temptations taught him the highest as well as the most useful of all virtues—humility—a wise distrust of himself. Unfortunately they generated only arrogance of spirit—pride of heart; that pride which ever goeth before a fall; and an inordinate contempt for the feeble men whom he had seen fall irretrievably on the slippery path where he had himself so frequently stumbled. One of these unlucky ones was his only brother, Richard Oakley, who, endowed by nature with a quicker, a more sanguine temperament than himself, less wisely guided by marital counsel and advice, perhaps also more strongly tempted, had rashly speculated with the fortune bequeathed him by his father—five thousand pounds, the same sum that Robert inherited—and the common result of such bold leaps in the dark had awaited him—bankruptcy, ruin! He had married a lady of Belfast of the name of Nevill, still young, although a widow, and the mother of one child, a boy. She brought no other fortune to her husband than beauty, innocence of heart, inextinguishable gaiety of temper, and yielding gentleness of disposition—admirable qualities, but, uncombined with the English gravity and prudence which distinguished her quiet, thoughtful sister-in-law, helped nothing to prevent, if indeed they did not hasten, a catastrophe which they could, however, cheer and soften. Perhaps Mrs Richard Oakley never so truly loved her frank tempered, facile-minded husband—certainly she never before exhibited such thoughtful tenderness—as when, scantily equipped for a new contest with the triumphant, mocking world, they bade adieu to the proud city that had witnessed their vain and brief prosperity, and subsequent deep humiliation, and went forth in search of happier, if humbler fortunes.

‘You must not imagine,’ said Robert Oakley coldly, in reply to his brother, who, with his wife, had, with downcast looks and hesitating steps, entered his counting-house in Wine Street—‘you must not imagine that other men have not been tempted by glittering baits, because they have not foolishly yielded to the seduction. I, too, have felt—all men, I imagine, have felt at times—the feverish appetite for sudden, inordinate gain which prompts the gamester whether he play on ‘Change or at less reputable places; but I have striven with and conquered the evil impulse. Feeble spirits, unable to withstand such temptations, should flee from them.’

‘You, Robert, were always of a more reserved and cautious disposition than I.’

‘Possibly; still’—

‘Besides,’ interrupted the weeping partner of the broken man—‘besides being married to so discreet, so good, so excellent a wife. Ah, Richard,’ she added with an outburst of self-accusing grief, ‘had you never seen me, this calamity might never have befallen you!’

‘Alice!’ exclaimed her husband with reproachful tenderness—‘Alice, this to me!’

'We had better not waste time in profitless regrets for the past,' said Robert Oakley. 'I am glad for your own sakes, as well as mine, that you have determined on leaving Bristol. I promised you two hundred pounds: my wife has persuaded me into making it five hundred, and I do so on the express understanding of course that this gift is to be a final one.'

'Bless her—bless her!' sobbed the grateful wife. 'But God *has* blessed her, and for *her* sake hers.'

'Here are notes,' continued the elder brother, 'for two hundred pounds, and a bill for three hundred, due in London the day after to-morrow, which I discounted for Sir Martin Biddulph.'

'Of Oatlands?'

'Yes: horse-racing and other noble and manly sports will, I doubt not, some day or other bring the owner of that fine property to the dogs. This bill will, however, I am pretty sure, be punctually paid. If not, I have indorsed it, and the London agents of the bankers here shall have instructions to pay it for my honour.'

Little more was said, and Richard Oakley, with his wife, passed out of the counting-house into an inner room, where not cold service, but the warm sympathy of a gentle, loving heart, awaited them.

'You will not forget to write frequently, very frequently, to me?' said Mrs Robert Oakley as she strained her sister-in-law in a parting embrace. 'And Caroline—you will not forget Caroline, I know, any more than we shall Harry, or sweet little Alice?' 'This is for her,' she added in a whisper: 'not a word, dear, if you love me—for her, not you.'

Fourteen years had elapsed since this parting and the afternoon when Mr Robert Oakley, as upright, physically and morally, as ever, and now rich to the extent of about £12,000, found himself suddenly overtaken by a heavy squall of wind and rain on the storm-beaten cliffs of the Isle of Wight. The distance he had to walk proved longer and more difficult of accomplishment than he had found it in the broad daylight a few hours previously, and he gladly availed himself of the opportune shelter offered by a small tavern at Freshwater to rest and refresh himself before attempting the one or two miles which, he was told, still intervened between him and Yarmouth.

There was a blazing fire in the bar-parlour of the little inn, tenanted only by a few comfortable, farmer-looking persons, and one or two unmistakable specimens of the half-seaman, whole-smuggler tribe, which at that period swarmed along the southern coast. Their conversation—a very animated one—ceased abruptly on the entrance of the stranger; but at the sight of his pinched features and dripping garments, evidently not those of a gauger—and the company there assembled were first-rate judges on the point—they with rough but ready courtesy drew back from the fire, round which they had been seated, discussing war-politics and hot spirits and water, and invited him to approach and dry himself. He very readily complied with the invitation, and by the time the tea, which he had ordered on entering, was brought in and placed, at his request, on a small table as discreet as possible from that of the tobacco-smokers, his chilled limbs, wet clothes, and ruffled temper, were pretty nearly restored to their normal condition; and he felt quite prepared to resume his journey as soon as the

abatement of the rain, doubtfully hoped for by the weather-wisdom of the room, should enable him to do so with prudence. Thus recomposed, he sat quietly down to tea, and had just finished it, when his attention was sharply aroused by the noisy entrance of two rough fellows in shaggy jackets and 'sou-wester' caps, pilots, it presently appeared, who had been out some days in the Channel, and had now brought up a schooner, bound from Shoreham to Poole, in the Yarmouth roads.

'A dirty night coming on, I'm thinking, Bob Shelden?' remarked a fat, rosy-jowled person, seated cosily by the fire, as soon as the new-comers were fairly settled in their chairs.

'You said coming on, Farmer Gage?' replied the gentleman so familiarly addressed in a dry, rasping voice, which the large tumbler of brandy and water he had already thrown down his throat could have done nothing to liquefy or soften—'you said coming on? It would blow the horns off a bull at the back of the Wight *now*, so it's to be hoped there ain't much more coming on, or the *Mary-Ann* will part her cable in Yarmouth roads. A light, Jack. Thanks! This 'bacca,' he added, after indulging in a few delicious whiffs—'this 'bacca is a very creditable article, considering it was never christened in a customhouse.'

'Stow that, Bob Shelden!' interrupted one of the party, hastily taking the pipe from his mouth, and jerking the point of it over his shoulder in the direction of Mr Robert Oakley's dark corner. 'Stow that, my hearty!'

Bob Shelden paused in his agreeable pastime, and shading his eyes with his hand, peered curiously in the direction indicated by his cautious friend. The examination must have been satisfactory, as he quickly and quietly resumed his pipe and the conversation.

'The gale was fortunately right aft, Farmer Gage; but just to give you a notion of what a screamer it is outside, we've been but little odds of six hours coming from Guernsey to Yarmouth roads, besides boarding and bringing in the schooner over the bargain.'

'That's a smart run, that is, Bob,' observed one of the seamen; 'but you had the tide from the Caskets.'

'Ay, lad, that's true.'

'Anything at Guernsey likely to be coming our way?'

'Well, there's a sloop-of-war lying there with a prize she'll be bringing in to Portsmouth; and there's a large barque, that put in two or three hours before we left, loaded with rum and sugar. She's been knocking about for the last three weeks everywhere but where she ought to be, and last Sunday's paper, I mind, said she was supposed to be either lost or carried into a French port. She's had her bulwarks stove in, and has lost her boats, with some other damage; but the cargo, they said, was all safe and sound. She'll come in, I daresay, in a day or two.'

'I don't remember hearing about her; where does she hail from?'

'She's the *Three Sisters* of Bristol, Captain Paulding, or some such name. Hollo, friend! what the devil are you upsetting and smashing the old woman's tea-tackle for, eh?'

In suddenly jumping up, Mr Oakley had overturned the little table upon which the tea-equipage was arranged. He hurriedly apologised for his carelessness, took up his hat and cane, threw a guinea on the table, and strode hastily out of the house, much to the astonishment of the specta-

tors—who, however, having ascertained that the guinea was a genuine one, charitably concluded that the stranger was a *gentleman*, though apparently rather crazed in his wits.

'It's very likely,' said Bob Shekton, 'that he has some concern in the barque I was mentioning. I saw Tom Hardy speak to him in the street at West Cowes last week. You know Tom Hardy, Farmer Gage?'

'Ay, lad, for one of the cleverest scamps in all creation. He's lost the situation I hear he had at Bristol, and is back again, I suppose, to live upon his poor old mother.'

'I daresay. I'm thinking this gentleman was Tom's master. I'll ask the first time I see him.'

'Very likely; and, as you say, concerned in the barque: if not, he must be crazed.'

Crazed indeed! The words of the pilot had smitten him with frenzy, and he hurried along towards Yarmouth, his brain reeling and his blood on fire with the suddenly-awakened and maddening lust of gold—gold in glittering, enormous heaps, to be obtained at no risk—'No risk!' he almost shrieked, 'save, save'—the pale thought *would* flit dimly, if only momentarily, across his throbbing brain—'save to his peace of mind, his moral life, his perilled soul!' 'Cummings, Brothers,' he presently muttered, regaining the hurried current of his previous thoughts: 'Cummings, Brothers, the richest house in Bristol! It will scarcely ruin them: besides, they would do the same: who would not? Fair, quite fair; everything is fair, they say, in war and trade. A strange chance: she was reported lost or captured when I left Bristol, and must now be quite given up. A rare chance! A glorious, golden opportunity, which, once missed, could never be regained. It shall *not* be missed!' and he quickened his already almost running pace towards Yarmouth. He was soon there, and at once hastened to the little quay. It was solitary and silent, but for the howling wind and furious sea that beat against, around, and over it. Oakley was surprised that pilots and fishermen should all have retired so early; for, strange as it may appear, the tumult, the tempest of emotion by which he was internally tossed and shaken, had rendered him not only regardless, but unconscious of the still-increasing storm which raged without. He was reluctantly turning to depart, when a heavy, lopping step was heard, and presently a seaman, in enormous jack boots, and carrying a lantern in his hand, was seen approaching. Oakley hurried to meet and accost him.

'Can I be put across to Lyminster?' he eagerly demanded.

'Across to Lyminster!' echoed the sailor. 'Why, who that isn't running from the gauger or the gallows would risk crossing on such a night as this?'

'I,' replied Oakley, 'who am running from neither, would—*will*, if a seaman is to be found in Yarmouth who is not afraid of venturing a couple of miles in a capful of wind.'

'A capful!' rejoined the man. 'Let me look at you?' and he suddenly held the lantern up to his questioner's features. 'Ay!' he exclaimed, after a curious gaze, 'I have not lived so long on the coast without having at times seen such a face as that; though never, thank God, in the shaving-glass! You must go, I see; that's plain enough. Well, I'll take you across.'

'Immediately?'

'Of course.'

'I will be here in five minutes.'

'Stop, stop! The fare: what do you think of paying for the risk of four men's lives—saying nothing of your own. It will require four hands to manage the boat in this wild sea.'

'Name your own terms.'

'Ten guineas: that is, ten one-pound notes and ten shillings, which, the law says, are equal to ten guineas; though they're not by a long chalk.'

'Agreed: I will not keep you waiting long.'

One chance of safety still remained to the self-righteous, pride-blinded Pharisee, who had glibly boasted of his power to stand, undizzied and secure, on the edge of precipices so often fatal to better men than he: his wife, the good genius that had so often saved him from moral wreck, he must see her before setting out on his hasty journey; and if she were to divine his errand, he might yet be saved—or baffled, as in his present mood he would have deemed it. He paused at the threshold of his lodgings, in doubt of what excuse for his precipitate departure would be least likely to awaken her solicitude—to arouse her fears. He did not remain long undecided: meanness, falsehood, duplicity, proffered their ready services; and he knocked sharply at the door. It was instantly opened, for he was waited for, and had been for some time anxiously expected. He ran briskly up stairs.

'Caroline, child, where is your mother?'

'In bed, papa; she has been poorly all the afternoon, and has just lain down.'

The husband felt a strong emotion of pleasure at this announcement; not, certainly, at hearing that his wife, whom he tenderly loved, was ill—suffering, perhaps; but that, in the comparatively obscure atmosphere of her chamber, that mild but searching glance, which he had often felt penetrate to the very depths of his being, could not so well read his countenance as in the glare of the sitting-room. He immediately went to her, and after a few affectionate inquiries, said, 'What letters have arrived?'

'Several,' was the reply, 'they are on the dressing-table.'

Mr Oakley took up one, hastily broke the seal, and with his back towards the bed, feigned to peruse it. Presently he uttered an exclamation of surprise, and turned quickly round.

'From Danby, love, requiring my instant return. Riley of Belfast is likely to stop payment; and Danby urges that either he or I should go over by the packet, which leaves Bristol at eleven o'clock to-morrow forenoon.'

'How unfortunate! Is the debt large?'

'Between six and seven hundred pounds.'

'Dear me! But you cannot possibly reach home in time.'

'Not unless I start at once by way of Lymington, in which case I could easily reach Salisbury in time for the mail from Southampton to Bristol.'

'But it seems to be blowing a hurricane. Surely there would be danger in venturing across to Lymington on such a night?'

'Nonsense, Mary; with the wind in the present quarter, the sea between the two shores is quite smooth.'

Finally, it was determined that he should set out at once; Mrs Oakley and her daughter to follow, on the day after the morrow, at their leisure. His preparations did not occupy more than a couple of minutes, and hastily embracing his wife and child, he hurried out of the house, and soon reached the quay. The boat was ready, and he was instantly embarked. The passage was a frightful one; twice the men seemed disposed to give up the attempt, and would have done so but for the almost frenzied supplications and promises of their passenger, who appeared insensible not only to fear, but to the benumbing effects of the drenching rain and sea that almost drowned them where they sat. At last the boat shot into the small harbour of Lymington; the men were liberally rewarded; and a quarter of an hour afterwards, a postchaise and four started from the Angel Inn, and dashed at a rattling pace through the New Forest towards Salisbury. Mr Oakley, occupied with eager calculations upon the extent of his probable gains, and the best, least suspicious mode of securing the prize almost within his reach, heeded not the passing of time; and at the end of about three hours' smart ride, was startled by the sudden pulling up of the chaise, and the announcement that he had reached the entrance of the city of New Sarum. He at once alighted, dismissed the carriage, and walked quietly, for he found he had a full quarter of an hour to spare, to the Red Lion at the further end of the town, craftily anxious that the guard and coachman, who knew him well, should not become aware that he had made any extraordinary effort to overtake the mail. When the coach arrived, there was fortunately one inside place vacant; he secured it, and early on the following morning safely reached Bristol.

Never had the attire of Mr Robert Oakley appeared more elaborately neat, more scrupulously spotless, nor his air and manner more placidly courteous and obliging, than when he walked gravely forth on the forenoon of his arrival to the place where merchants most do congregate. Salutations in the marketplace, congratulations upon his return to home and business, were abundant, almost overpowering. Mr Robert Oakley, nevertheless, bore his honours meekly, and passed quietly on to the merchants' newsroom, where, at that time of the day, he knew he should be tolerably sure of meeting with one of the firm of Cummings, Brothers. He was not disappointed. The eldest partner was there, looking as gloomy as Mr Oakley could wish. No tidings of the *Three Sisters* had yet, it was quite clear, reached Bristol. They exchanged a matter-of-course greeting, and Oakley passed on. About ten minutes afterwards Cummings, senior, having finished the perusal of the journals, rose to depart; and Mr Oakley, suddenly remembering that he had an order from an Irish correspondent for some sugars, accosted him, and they proceeded together to the great firm's place of business. There the conversation, after a sufficient interval devoted to other topics, was adroitly turned by Robert Oakley upon the missing ship, and the enormous rates of insurance offered by the owners, and refused by all the underwriters. The firm of Cummings, Brothers, were often, generally indeed, except under peculiar circumstances, their own insurers—that is to say, they having an immense number of shipments, instead of certainly sacrificing the large sums they must have paid to effect so many insurances, preferred to set them apart to meet and cover any

particular loss. This system they had generally found answer. They were now, however, and had been for a considerable time of course, anxious to effect an insurance on the *Three Sisters* at almost any premium. This state of affairs was thoroughly known and understood by Mr Oakley, and the ultimate result was, after much fencing and coquetting on his part, that he suffered himself to be persuaded into a transaction by which, for the present payment of £10,000, he purchased the entire cargo of the missing ship, should she not have been lost or captured. A cheque for £6000—all the present cash he had at his banker's—and a promissory-note at sixty days for the balance, were given with admirably-feigned reluctance to Cummings, Brothers. The bills of lading and other documents were handed to Mr Robert Oakley, and the bargain was complete—Cummings, Brothers, glad to have saved so much out of what they had deemed a total loss, and Oakley secretly exultant with the rapturous conviction that the ambition of his life had by one fortunate stroke been accomplished, or, to speak more soberly, that the means were now within his grasp by which, prudently brought into play—and he resolved to be very prudent—the colossal fortune of which he had so long dreamt might be swiftly and safely built up. Happy, fortunate Robert Oakley!

'Happy, fortunate Robert Oakley!' echoed all Bristol, except, indeed, the astounded firm of Cummings, Brothers, when, on the fourth day after this transaction, the *Three Sisters* was signalled to have safely anchored in the roads! The incense which the world freely burns before whatever idol fortune chooses to set up—noisy felicitations of envious hearts, mouth-honour, breath—was lavished abundantly upon the lucky speculator, and, best of all, no one appeared in the slightest degree to suspect that an enormous fraud had been committed—a gigantic swindle—whatever the letter of the law might call it—been perpetrated! Fortunate Robert Oakley!

Yes; one! He could not look steadily in his wife's countenance as he communicated to her the wonderful hit he had made, but in that momentary glance he had read—instead of joy, exultation, rapture—anxious bewilderment, vague, undefined alarm. He hastily changed the subject, after confusedly endeavouring to underrate greatly the magnitude of his enormous gains. He then left the apartment, and a long time elapsed before the subject was again mentioned between them.

Vexatious that any cloud, however slight and transient, should obscure the brightness of such a joyous day! The momentary irritation was, however, soon forgotten by the merchant when seated a few minutes afterwards in his private room, every faculty absorbed in elaborate calculations of the value of the cargo of the *Three Sisters*—the cost of freight, and other important items. A respectful tap at the door disturbed him.

'What is it, Danby?' he asked in an impatient, querulous tone.

'Thomas Hardy desires to see you, sir, immediately, on, he says, important business.'

'Thomas Hardy! Have I not repeatedly given orders that the fellow should not be allowed to enter my premises?'

'True, sir; but he will this time take no denial. He bade me say he has an especial message for you from a person at whose house you drank tea last Thursday evening in the Isle of Wight.'

'Isle of Wight!' stammered Oakley: the indignant expression of his countenance changed instantly to that of pale alarm. 'Isle of Wight!'

'That, sir, is his message.'

'Bid him—bid him come in,' said Mr Oakley as he dropped back into the chair from which he had risen to admit the clerk. 'I—I will see him.'

Danby, in his turn greatly surprised, withdrew, and presently returned ushering in a tall, spare, shabbily-dressed man of about thirty years of age. He was not positively ill-looking: his features, separately considered, were well enough; but there was a sinister sneer about his thin, colourless lips, a fawning malignancy playing in his deep-set eyes, that rendered his sallow visage excessively repulsive.

'You may retire, Mr Danby,' said Oakley. The clerk obeyed, and the merchant and his unwelcome visitor were alone together. The interview lasted about a quarter of an hour, at the end of which time the door opened, and both passed into the clerk's counting-house.

'Mr Hardy will resume his situation to-morrow morning,' said the merchant hurriedly. Danby, perfectly startled, looked hastily up. His employer's face he saw was deadly pale, and he appeared much agitated; he, however, repeated the order in reply to Danby's mute expression of surprise, and immediately turned back towards his private apartment, Hardy at the same moment passing out of the front door into the street.

The next morning the re-engaged clerk was early at the office—well-dressed too—and rose quickly in the apparent good graces of his employer, of whose rapidly-extending business, and always more or less successful speculations, he very speedily became the chief and only confidential agent and adviser. All appeared to be sunshine and prosperity with the lucky merchant; and, as if to stamp the sudden fortunes of the Oakley family with unquestionable solidity and permanence, a distant relative, who had scarcely noticed him when a comparatively obscure person, now that he, according to the world's report, bade fair to become one of the millionaires of the country, bequeathed him, by a will dated but a few days before death, the sum of £30,000, in trust for his daughter Caroline, into whose absolute possession it was to pass, with accumulated interest, on the day she attained her majority. Never was there, everybody said, a more fortunate man. A seat in parliament—a baronetcy—higher splendours even than that, but not to be named till clutched—already glittered in the distance.

One, as yet distant, prophetic death-note alone mingled and jarred with these gay joy-bells. The sympathising partner of his earlier and better life—his gentle, true-hearted wife always—was visibly descending with swift steps towards the tomb. She had been long in delicate health; but from about the period of her husband's sudden accession of wealth it had rapidly given way; and now, when it was already March, he was told by the physician, in the quaint phrase of the country, 'that his wife would never get up May-Hill.' He was deeply shocked, and yet—so strangely was he already changed—the announcement was not wholly painful. She had never felt, never expressed any, the slightest satisfaction at the brilliant turn his fortunes had taken; and, worse still, had constantly refused, anxious as he had been to surround her with luxuries of all kinds, to sanction the slightest addition to their modest establishment—was, in fact, far

more rigidly economical than before; appearing to shrink from any contact with his new wealth as from pollution—while he dared not press her closely for her reasons. One only of the late events seemed to have afforded her pleasure, and that was the legacy to her daughter Caroline. For that bequest, though certainly the very reverse of mercenary, she had expressed unbounded thankfulness. Would not, then, her removal be a relief—almost, he felt, though he hardly dared whisper it to his own heart, a blessing?

Whatever it might prove, it was not long delayed. Each succeeding day found her paler, thinner, weaker: the frail covering of mortality seemed to fall visibly off, and reveal in hourly-increasing excellence and beauty the stainless and gentle spirit panting to be freed from its decaying prison-house. The patiently-awaited and all undreaded hour, the calm evening, illumined and made glorious by the radiant purity of her well-spent day of life, at length arrived. The last and unmistakable summons was a sudden one, and to all but herself startling and unexpected. Her husband was out. A messenger was despatched for him; and as he entered the apartment, the weeping daughter, who, in kneeling reverence, had been listening to her parting injunctions, rose at a sign from her dying parent, and left the room.

‘Robert,’ she said, softly addressing her husband, who displayed, and doubtless for the moment felt, much vehemence of grief; and her mild but solemn eyes rested with inexpressible tenderness and sorrow upon the chosen of her youth, the father of her child—‘Robert, forbear this bootless grief, and listen as patiently as you can to the last few words I shall ever utter upon earth. I dare not hope they may be immediately successful in inducing you to retrace the sinful and ultimately—be assured—fatal path on which you have so blindly, so recklessly entered; but the day, I trust, will come when they may bear fruit. It matters not to relate *how* I have become acquainted with the mode whereby you acquired your ill-gotten wealth—nay, I beseech you, Robert, interrupt me not; I speak not in anger, but in love. Reproaches cannot, I know, cause one of the bitter hours of the past to be rendered back to you—what is done is done—and too often, I know, the lost and vain regrets that gather behind man in his ephemeral road serve only to throw a dreary light over the past, and afford no help or guidance for the future, for the unborn day which, oh my husband, God *owes* not to you, but which He will, I trust, in mercy grant, to enable you to put away the accursed thing—to restore’—

‘You mistake, Mary!’ groaned Oakley, without uplifting his face from the pillow on which it was bowed and concealed—‘you mistake, Mary; I have done no wrong—none.’

‘Do not attempt to deceive me; do not, I implore you, Robert, strive to deceive yourself by such poor sophistry as may be pleaded in defence of such a crime.’ She paused, fainting, and apparently exhausted, but presently resumed. ‘Caroline—whose betrothment to her cousin, as we call him, to Harry Neville, has, you will remember, my especial sanction—Caroline has promised that the legacy bequeathed to her shall be devoted to the wiping away of this offence, so that happily the curse remain not on you—on her. She will, I know, keep her word.’

‘What madness is this?’ exclaimed Oakley, starting to his feet.

'You must be'— He paused, rebuked into silence by the solemn, almost stern glance of the dying woman, over whose countenance a startling change at the instant passed.

'And do you not know, Robert—have you not perceived,' she said in a faint, tremulous, but deep whisper—'are you now for the first time conscious *that it has killed me?*'

A lamentable cry burst from the heart-stricken man: he clasped his expiring wife passionately in his arms: a promise to comply with her wishes at any sacrifice was on his tongue—would have been uttered, but at the instant the death-sob struggled in her throat, the last gleam of light vanished from her eyes, a faint sigh stirred her pale lips— he knew that she was gone, and the rash vow remained unspoken!

As he left the apartment he met his daughter; embraced her, looked inquiringly in her face, and in that fair tablet read pity, regret, compassion, it may be love for him, vividly traced as before; but esteem, reverence, filial awe, he saw, had vanished for ever. She, too, then knew all! Well, it must be borne.

These sad impressions were soon effaced from the elastic mind of the busy merchant and money-dealer, or at most served but to hasten his contemplated departure to the wider and more lucrative field of London, where familiar objects, inseparably associated with the past, would no longer incessantly call up memories which he felt were best forgotten. Thomas Hardy, too, whose wishes went for much, was anxious to exchange Bristol for the metropolis; and the result was the transfer of the establishment to the city of London, where Mr Robert Oakley, counselled, stimulated by his constant shadow, Hardy, plunged eagerly into the distracting whirlpool of the Stock-Exchange, rode in apparent triumph amidst its capricious currents and swift eddies, and gathered, it was said, fresh wealth from every ebb and flow of the turbid and dangerous tide.

One afternoon about six months after his removal to London, his old acquaintance, Sir Martin Biddulph, called on him. The greeting of the baronet was jovial and hearty as himself; the response of the money-broker cautious and reserved, as became a rich and prudent man in the presence of a possible borrower.

'Well, Master Oakley, the world goes swimmingly with you, it appears. You are likely, I am told, to die worth a million?'

Robert Oakley only replied to this equivocal felicitation by a cold, fidgetty smile and shrug; and his visitor proceeded.

'But, zounds man! what a deucedly harassing life this money-making must be! Why, you are as thin as a weasel, and look as withered as a last year's apple! There seems scarcely any of you left! You and I must be about the same age—and only just look at me!' The comparison, certainly a striking one, provoked the unbounded mirth of the fox-hunter, but failed to excite any corresponding emotion on the part of his auditor. On the contrary, he seemed considerably annoyed.

'Now, Master Oakley,' said the baronet as soon as he had wiped his eyes, overflowing with exuberant mirth, and composed himself to seriousness—'now, Master Oakley, to business: I want your assistance with respect to some money matters.'

'I am sorry to say,' observed Oakley with cold civility, 'that just now'—

'Cash is scarce—not to be had in fact,' interrupted Sir Martin with a renewed guffaw. 'Of course it is. I never, for my part, knew it to be otherwise. But my business with you, man alive, is to invest—not borrow!'

'To invest!'

'Positively. As soon as you have recovered breath, listen. Are you ready? Good! Well, then, you know as well as I do, you old usurer—you were a young one, though, when I first knew you—you know that I went the pace for years charmingly; was in fact galloping to the devil as fast as a splendid stud of first-rate racers could carry me; but it appears you do not know that I have pulled up in time, and that a venerable aunt of mine—excellent old soul!—altered her will a few hours before her death; and instead of bequeathing her large wealth to half-a-dozen hospitals, bestowed it all on my unworthy self, placing me once more all right with the world, with a splendid balance over. Having had a nearer view than was pleasant of ultimate insolvency and ruin, I determined thenceforth to *keep* myself all right.'

'A wise resolve.'

'Unquestionably. But as I have no very great confidence in good intentions when pitted against bad habits, I mean to take myself for a year or two out of the way of temptation. Aunt Martha's Jamaica property has been wretchedly mismanaged, so I intend rustivating amongst the sugar-canes, and thus kill two birds with one barrel.'

'I shall be happy to render you my best assistance in any way you can point out,' said Oakley with much deference.

'Well, I know you, Oakley, to be a close, and I believe you to be a *safe* man, and that is a great deal to say in these "suspension-of-cash-payment" times. I wish you first to invest some twenty thousand pounds I have to spare just now in the most profitable securities you know of, and to do the same with such other sums as I may from time to time remit.'

Mr Oakley bowed grateful acquiescence: he would promote Sir Martin's interest to the best of his humble ability.

'I shall shut up Oatlands, and have the principal plate and some boxes of family papers—my will amongst them, by the by—brought here for security, if you have no objection.'

Mr Oakley could have no possible objection to such an arrangement: none in the world.

'My nephew, Francis Severn—you have seen him, I think? I called with him on you a few years since in Wine Street.'

'It was his cousin, was it not?—James Conway—an older person I have understood?'

'Ah, yes; very likely. A sweet youth that, but I hope he will some day mend his manners.'

'Wild, I suppose?'

'Yes; besides being ambitious as Lucifer, and as careless too in my belief about the means of advancement. I shall provide sufficiently for him. But as I was about to remark, Frank, who will be my heir—that is, if he does not mortally offend me, which is not very likely; indeed I doubt that

he could do so if he tried for very long together—Frank, I say, being about, since the continent is shut, to make a tour of the United Kingdom, there will be nobody to keep house at Oatlands till I return, so that I am in some sort *obliged* to shut it partially up. And now as to the nature of the securities you would recommend?’

A long business conversation, unnecessary to relate, ensued, at the close of which the baronet, perfectly satisfied with the arrangements suggested by Mr Oakley, rose to depart.

‘By the by, Oakley, I told you—did I not, long ago?—that your brother holds a farm of mine not far from Oatlands?’

‘Not that I remember, Sir Martin; but I know it nevertheless: the families correspond.’

‘Well, he’s a fine gentlemanly fellow let me tell you, and his daughter Alice is a very charming person; very much so indeed. You have seen her, I suppose?’

‘No, I have not: my daughter Caroline did a month or two ago.’

‘Your brother is prospering. I became acquainted with him in consequence of his calling in Berkeley Square many years since with a bill you had cashed for me. You remember, I suppose? Good-day.’

‘Bad news that for Mr James Conway,’ said Thomas Hardy, drawing aside a green calico curtain which had concealed his desk and himself from the view of the baronet.

‘You know him, then?’ said Oakley.

‘Yes; I see him most evenings. We sold stock to the amount of about a thousand pounds for him about four months ago.’

‘I remember the circumstance, now you mention it.’

Hardy re-drew the concealing curtain, and Mr Oakley resumed his interesting studies on the rise and fall of stocks and consols.

The opinion pronounced by Sir Martin Biddulph upon the character and position of Mr Richard Oakley was in no respect an exaggerated one. The teachings of adversity, instead of being thrown away upon him, as they are upon so many thousands of the world, had proved most salutary, both to him and his somewhat volatile, but high-spirited, warm-hearted wife. It had taught them the difference between shadow and substance. They had looked upon the *reverse* side of the glittering shows of pretentious society, and noted not alone the coarse material of which it is essentially composed, but the ignoble motives, shifts, and expedients by which the brilliant figures are animated and held together; and they determined that their future life should, however humble, be a reality, not a seeming—a positive condition of being, depending for estimation and respectability upon its true nature and quality, neither distorted nor set off by the false lights of vain and ambitious pretence: precepts of wisdom hard to learn, still harder to practise, but of infinite concernment to all who would pass through life unexposed to the contempts, the heartburnings, the painful vicissitudes, which are sure to environ and accompany a false position. Richard Oakley had passed several of the best years of his youth on a farm, and he had a turn, as it is called, for agricultural pursuits. Sir Martin Biddulph happened to have a farm—a small one, of about a hundred acres only—of first-rate land, and he became his tenant. Industry, perseverance, and a wise economy, succeeded with him, as they usually do with everybody; and Mr

Richard Oakley was now in very easy, pleasant circumstances, surrounded by all the material comforts, and of most of the modest luxuries, of life, in a home illumined by the smiles of the cheerfulest of wives, and crowned with a triple halo of gentleness, grace, and beauty, in the person of their daughter Alice. His wife's son, Harry Neville, had chosen a sea-life; and, thanks to Sir Martin Biddulph's interest, had obtained an excellent footing in the maritime service of the East India Company. Richard Oakley knew of the great prosperity of his proud, cold-hearted brother, for both he and his wife corresponded with Mrs Robert Oakley till within a few days of her decease; and they knew also by the tone of her letters that abundant riches had not added to *her* happiness. More they were not informed of, nor had a right to inquire. Thus with them gently swept along the stream of life—calm, tranquil, and lit up by bright visions of the brilliant destiny awaiting their elegant and beautiful child, as pictured by parental admiration upon the dream-land of the future. Ambitious promptings! but not, so rumour hinted, wholly without colour of excuse; for it was said Sir Martin Biddulph had been influenced by other than the ostensible motives he had assigned in breaking up his establishment at Oatlands, and the peremptory condemnation of his favourite nephew and heir to an exploring expedition through the fastnesses and wilds of Great Britain and Ireland.

However this may be, Sir Martin, albeit a little flustered by the startling manner in which Mr Twynham, the family surgeon and apothecary—for, like most country practitioners, he prepared the medicaments he prescribed—spoke of the climate of Jamaica, and its generally fatal effect upon gentlemen of full habit of body, he persisted in his resolution of ascertaining the condition of his West India property with his own eyes. Mr Twynham, a man of education and considerable ability in his profession, whom an early, imprudent marriage, with its usual accompaniments of numerous children in bibs and pinafores, imperatively forbade to venture on a higher and more speculative range of practice than the neighbourhood of Oatlands afforded, was of course anxious not to lose so important a client as the baronet; and this, Sir Martin comforted himself with reflecting, gave a twist to his opinions upon yellow fever, that deprived them of much of the consideration they would otherwise have been entitled to.

Two years passed away—years of war, of apparently interminable strife and bloodshed, and, as regarded Great Britain, of alternate exultation and dismay; while the nations of the continent, stunned and writhing beneath the drums, trappings, victories of the great conqueror of the age, as yet saw no hand sufficiently powerful stretched forth to rescue them from the iron bondage by which they were enthralled: years, necessarily—as indeed the wrinkled brow, restless eye, and thin gray locks of Robert Oakley amply testified—of fearful agitation, or rather convulsion on the British Stock Exchange; hot, stifling years, which appeared to have withered up all of healthful life which God had breathed into his nostrils. Still, the insatuated man, though surrounded by the ruins which cumbered that burning, heaving soil, toiled on as eagerly as ever at his house of sand—hoping, insensate dreamer! that the unsuspecting hurricane would, whoever else suffered wreck, spare him!

Sir Martin Biddulph found that the profitable duty he had undertaken required, for its thorough and lasting completion, a much longer sojourn in Jamaica than he had anticipated; and although his last letters intimated fears that his health was beginning to give way beneath the deleterious effects of the climate, no definite time as yet seemed fixed upon for his return. His nephew and presumptive heir, Mr Francis Severn, had, however, contrived to finish *his* appointed task in considerably less time than his uncle had calculated or imagined, and was now returned from his enforced pilgrimage to Oatlands; wonderfully improved, in the opinion of the country-side, not in health only, but in manly comeliness of personal appearance. His old taste for field-sports had, it seemed, been rather sharpened than dulled by his long absence from his uncle's well-stocked covers; for he was up and off with his dogs and gun long before daybreak on the morning after his arrival; or was it, perchance, the sylvan splendour of the scene which awaited him as he merged from Hopeburn Coppice that had attracted his steps so early abroad? Possibly; for rarely, indeed, is the sombre veil of night uplifted from a view more enchanting in its varied beauty than that which the calm new-risen sun was, as he gazed, tinging with golden light. The solitary house on the brow of the hill, which, beneath the spiritual radiance of the stars, appeared an indistinct mass of pale light and chequered shade, became rapidly defined in outline and in colour: valley, hedgerow, hillside, sent up their winged choristers to heaven; peasants issued from the nestling cottages, of which the smoke was seen curling above the surrounding belt of forest-trees; girls, whose fresh cheeks the accustomed morning sun kissed with rude health, drove forth kine to pastures sparkling with dew; and life awoke in valley, hill, and river!

'I doubt,' said an active, middle-aged person, who had approached Mr Severn unperceived—'I doubt, sir, that you have seen anything more truly beautiful in all your two years' wanderings?'

'*More* beautiful!' exclaimed the young man mechanically, or rather impulsively—'*more* beautiful'—He checked himself, and wresting his gaze from the house on the hill, turned half round, and said, colouring slightly as he spoke, 'You are early abroad this morning, Mr Twynham.'

'It is many years, Mr Severn, since I had the choice of my own time of rising: I have been out these two hours, and am now returning home. I was remarking on the singular beauty of the landscape.'

'True—true; very charming indeed: trees, cows, milkmaids, and so forth. Pray, Mr Twynham,' he added hesitatingly, and with a heightened colour, 'have you seen our friends of Beech Lodge lately?'

'Which of them?'

'Mr and Mrs Oakley of course; and—and'—

'Harry Neville? He is second officer on board the *Calcutta*, and will not be home for some months.'

'Truly, but'—

'Or 'is it, perchance, Deborah the housemaid you are anxious about? because'—

'Pooh! You are in one of your satirical moods this morning, Mr Twynham; and as I am not in the vein for banter, I must bid you good-by.'

'I was never more disposed to be serious—sad, I was about to say, my young friend,' said Mr Twynham, laying his hand upon Mr Severn's shoulder, and gently detaining him; 'for I have been watching with painful interest the absorbed, abstracted gaze you have for some time directed towards Béech Lodge. Absence has not, I fear, sufficed to check, much less subdue, your passion for the beautiful Alice?'

'You fear! You, who know Miss Oakley, *fear* that I have not grown indifferent—cold!'—

'You must permit me to speak on this subject with my old freedom, Mr Severn,' replied the surgeon. 'It is a singular, and it may be a fortunate chance (since you, I know, believe that Sir Martin's objections are not insuperable, and so do I) for this young girl—beautiful, amiable, well-educated, as everybody must admit her to be—to have so deeply charmed the heir to so many fertile acres.'

'Nothing, one would suppose, should appear more natural,' replied Mr Severn; 'unless, indeed, you hold heirship to fertile acres to be necessarily incompatible with correct taste and perfect eyesight.'

'And yet I know not,' continued Mr Twynham in a musing tone: 'this fortune, gold, power, the idol—by whatever name it may be called—before which the great, as well as little world, bows down so abjectly, is too frequently, I fear, a false-promising god. These unequal marriages, especially,' he added with graver emphasis, 'seldom bring lasting happiness to either party. A brief season of bewildering enthusiasm; and then the divine statue which, in the warm light and dawn of love, gave forth entrancing melody, remaining dumb, or yielding but harsh dissonance when swept over by the cold breath of chilled and sated passion, the disenchanted Memnon-idol is too late discovered to be mere ordinary potter's clay, and utterly unworthy the sacrifice made for its possession.'

'Upon my word, Mr Twynham,' rejoined Mr Severn with some heat, 'you are extremely classical and eloquent to-day; but as I am in too cheerful a mood this glorious morning to listen to grave homilies, however prettily composed, perhaps you will have the goodness to reserve the remainder of your discourse for a sadder and more appropriate hour. *En attendant*, I have the pleasure of wishing you a very good-day.'

He hastened off at a pace which speedily brought him within a few yards of the residence of the Oakleys, where he paused, disappointed and out of breath. Half-way up the hill he had doffed his hat, in delighted recognition of the beautiful Alice, whose silken tresses, waving with golden light, gleamed, unless his eyes deceived him, from amidst the green foliage which enframed the windows of the sitting-room. His eyes *had* deceived him; the golden tresses were but sun-rays reflected from the polished glass and glittering leaves. Alice must be aware, he thought, of his return, and might have known he would be early past her dwelling. Was it forgetfulness, caprice, change, that withheld her from appearing? He walked many times round the house, and at length, his patience thoroughly exhausted, and, moreover, considerably ruffled in temper, whistled his dogs together, and was turning to depart, when his quick ear caught the lifting of a sash, and a low, sweet voice exclaimed in the prettiest accent of surprise imaginable, 'So early abroad, Mr Severn!' He was in an instant beneath the casement; but the lady being summoned from within, the

colloquy was necessarily a brief one; yet eloquent withal, if one might judge by the bright blush which lit up the fair girl's charming countenance, and which was *not* caused by the bouquet of fresh roses held fan-wise in her hand; for it retained its crimson radiance long after the flowers—too loosely held, it seemed—had fallen from her hand, and been caught and placed with graceful gallantry in Mr Severn's bosom. He slowly withdrew, and lingeringly pursued his path in search of sport, or what at least should have been sport; but which this morning, at all events, seemed to prove anything but pleasant pastime. He missed every shot, to the great surprise and scandal of his dogs, which made no allowance for the disturbing influences of a heightened pulse and preoccupied brain. So unsuccessful, and so uninteresting was the pursuit, that Mr Severn had just decided on returning to Oatlands, calling in of course at Beech Lodge as he passed—perhaps breakfasting there, as he used formerly sometimes to do—when his sportsman propensities were stimulated into momentary activity by the sight of a splendid covey flying past, far out of reach of shot, and settling down in an adjoining field. Hastily, carelessly, he broke through the intervening hedge, dragging his gun by the end of the barrel after him, when some obstruction, a twig probably, caught one of the triggers, and the charge of a barrel was lodged in his shoulder, inflicting a frightful wound. He was conveyed to Oatlands by some labourers who had witnessed the accident; and fever supervening after the operation of extracting the shot, he lay for many days in great danger, though unconscious of it, as well as of that which, known, would have done much to assuage the pain and grief of the wound—so inconsistent is the selfishness of love—the distraction and agony of mind evinced by Alice Oakley when she heard of the, to her represented, *fatal* accident that had befallen him; revealing a state of mind which suddenly reserve had hitherto concealed, or at least left him in some doubt of. It was, however, reported to him, though imperfectly, on his partial recovery; and had the effect of bringing about an immediate *éclaircissement* with Alice and her parents; the issue of which was, that Mr Severn was accepted as the future husband of Alice, subject to the approval of Sir Martin Biddulph; to whom his nephew immediately wrote, depicting in glowing colours the fervour and invincibility of his passion, and the innumerable perfections of the object of it; and imploring the baronet's consent to a union on which, the young gentleman declared, not only his peace, but his very life depended. This done, the lovers awaited in apprehensive hope, and with the best patience they could exercise, a reply involving, according to their opinion and feelings, such tremendous issues.

With the same mail went out a letter to the baronet from Mr Twynham the surgeon. This gentleman, either really apprehensive of a fatal result in Mr Severn's weak state, should an adverse reply be returned, or, which seems most likely, influenced by a desire to serve his old friends the Oakleys, quite as much as by regard for the heir of Oatlands, impressed upon Sir Martin the necessity of according a favourable response to his nephew's prayer; otherwise, Mr Twynham seriously declared, he anticipated the worst results. The anxiety felt by Mr Severn certainly materially retarded his recovery, for the four months which intervened between the despatch of his letter and the baronet's reply had failed of restoring

him to his former health and vigour. 'Hey-day!' exclaimed Mr Twynham as he called at Oatlands one afternoon on his customary visit, and found Mr Severn earnestly engaged in the perusal of freshly-arrived letters and papers—'Hey-day, Mr Severn—the medicines that have lighted up those but yesterday pale cheeks and doubting eyes with health and hope never came from my laboratory, I'll be sworn. You have news, I am sure, from Sir Martin?'

'My dear Twynham,' exclaimed Mr Severn, gaily jumping up from his chair, and heartily shaking the surgeon's hand, 'you are the best fellow in the world. Here is a letter from my dear excellent uncle, fully consenting to my union with Alice, chiefly moved thereto, he says with his usual amiable jocularly, by the same motive that induced Beatrice to wed Benedict—"upon great compulsion, and partly to save my life, as he had heard—and from better authority than my own—that I was likely to die of a consumption."' The congratulatory mirth of the two gentlemen upon the success of their conspiracy was unbounded, especially as Sir Martin gave *carte blanche* as to the time the nuptials must take place, hinting that he should not be displeased if an early mail brought him news of the marriage. Somewhat private and unostentatious it should be, Sir Martin added, as the festivities could be adjourned till his arrival, which he hoped would not be long delayed.

'One would not needlessly sadden the joy of the young people by the expression of sinister forebodings!' mentally exclaimed the surgeon as he left Oatlands on his return home; 'but I am greatly mistaken if the kind, generous-hearted baronet does not feel a strong misgiving that his days are numbered, and is therefore anxious that the wedding should take place before intelligence of his death arrived to forbid its celebration for a long time to come. A better, more gentler-minded man than Sir Martin never, I think, breathed.'

Bowed, haggard, panic-stricken, utterly unable longer to conceal—practised as he had become in dissimulation—the frightful emotion which convulsed him, Mr Robert Oakley hastened about noon, on a bright day of sunshine in the ensuing spring, from the distracting Babel of the Stock Exchange to the silence and concealment of his counting-house. 'Ruin—ruin!' he frantically muttered as he strode wildly up and down the room; 'blank, utter, irretrievable ruin! Fortune, character—all—all gone! Fool—idiot that I have been, to spend my strength for that which is not bread! to have schemed, toiled, fretted an anxious life away only to reap in premature old age dust and bitter ashes—scorn, contempt, contumely, destitution. Well!' he almost screamed, pausing in his disordered walk as the door opened and admitted the person of Thomas Hardy, whose bloated countenance wore a half-dismayed, half-insolent look—'well! Is there any hope that this dreadful panic will abate? Speak, will you? What do men say now?'

'That consols will be at least two per cent. lower by settling-day, from which only forty-eight hours now divide us. You and I know what that means in the present very delightful state of the affairs of this house.'

'It means destruction—ruin—shame! My daughter's fortune, besides large sums belonging to Sir Martin Biddulph, all gone—lost—swallowed

up in the infernal vortex! Devil!' he shouted, turning with sudden fierceness upon his associate—'devil! to what an accursed pass have your plans and machinations brought me!'

'My plans and machinations!' replied Hardy with brutal, defying insolence. 'Did you suppose for a moment that *all* speculations would prove as *certainly* profitable as that of the *Three Sisters*!'

'Taunting villain!' exclaimed Oakley, literally foaming with impotent rage, 'is this a time to insult—to trample on me?'

'Well, perhaps not. But come, old fellow, it's of no use snivelling. Something must be *done*, and quickly too, or the ship will be on the breakers; and as I'm a passenger, I'd rather not.'

'What can be done that has not already been attempted? What expedient, what device, can you suggest that has not been tried and failed—miserably failed?'

'Much can still be done, I tell you, if you are the same man you were on the day you met the pilot in the Isle of Wight.'

'Would I were—would I were! It was then I lost myself: then began the swift descent at the end of which lies ruin. But regrets will not recall the past: as she said, those fatal hours cannot be rendered back to us.'

'True enough—but the present at least is our own; and on it, if you have not become a mere drivelling dotard, a splendid future may be built up, for all that's come and gone yet; and luckily here comes a gentleman very heartily disposed, or I am much mistaken, to aid in the good work.'

As he spoke, Mr James Conway entered; and Hardy, who had evidently expected him, instantly rose, and locked the door of the counting-house.

The new-comer was scarcely more than thirty years of age, but long, habitual indulgence in evil courses had already dried up the fresh springs of life, and smitten his still youthful frame with incipient weakness and decay. A mournful wreck he seemed, with just sufficient traces left of what he had been to enable men to measure the depth and extent of his fall and degradation. He appeared to be greatly excited, and both voice and manner indicated extreme and painful emotion.

'Well, Hardy,' he said, as soon as he had taken a seat, 'have you spoken to Mr Oakley of our proposition?'

'No. I thought it would come with more effect from you.'

'What have you to say, young man?' demanded Oakley. 'What is your business here?'

'To serve you, because only by doing so I can effectually serve myself. You perceive I am candour itself.'

'It appears so. Go on.'

'You will not be surprised to hear that through my intimacy with Hardy I am thoroughly acquainted with the present disastrous state of your affairs—that I know you are, in fact, on the brink of utter ruin.'

'Plunged in—overwhelmed, no hope, no friendly plank to grasp at!' moaned his unfortunate auditor, wringing his withered hands; 'blank, total, irredeemable ruin!'

'That your daughter Caroline's fortune,' continued Conway, as if exulting in the anguish of the wound which he was probing to the quick, 'has been spent without her knowledge; and that, should the present down-

ward tendency of the funds continue till settling-day, now only forty-eight hours distant, the differences on your enormous time-bargains will sweep away every shilling you possess, leaving you a defaulter to Sir Martin Biddulph to the tune of between twenty and thirty thousand pounds—a clear breach of trust, to say nothing of other but less pressing obligations.'

'True—true! Would I were in my grave!'

'So would not I, at least for the present; but now to real business. I can save you!'

'You?'

'I. In the first place, I have to inform you that my uncle, Sir Martin Biddulph, is dead. The news has just arrived.'

'Dead! Are you positive?'

'Quite. The fever carried him off at Port Royal a few days before his intended embarkation; and, moreover, my amiable cousin, his heir, according to the will left in your custody, has arrived in Berkeley Square with his recently-wedded bride.'

'You astound me. I had not heard that he was about to marry. Who is the lady?'

'I do not know: a mere nobody, I believe, but a very charming person notwithstanding. I had heard nothing about the marriage which he intimated, but I doubt whether it had my uncle's full approbation—till this morning, when he sent for me to acquaint me with Sir Martin's decease. The lucky heir is a sharp hand you will find. I happened to mention that I was coming here, and he bade me say that he should call upon you to-morrow—of course to arrange and settle his "little account."'

'It needed but this!' groaned Oakley, pallid with fear, and shaking with uncontrollable terror—'it needed but this!'

'Now to the point: I am, as you must be aware, according to the English law of succession, Sir Martin's heir; but my rightful claim is barred, superseded, by the will in your possession'—

'Ha!'

'Hardy and I have talked this matter quietly over; and here, in a word, are my terms. They are, I think, liberal, considering that the transaction involves, as you will see, no possible risk. Burn that will in my presence, and I not only forgive the debt to the estate, but will assure you a sum sufficient to enable you to surmount all your difficulties!'

Oakley started to his feet, as if bitten by a serpent, and glared with breathless excitement at the tempter. 'How—how,' he at length gasped—'how dare you propose robbery—felony—to—to me?'

'Stuff, man! Is it a greater robbery to restore his inheritance to a rightful heir, than to make such charming bargains as gentlemen who stand much better upon 'Change than you will do in a day or two, frequently effect by the aid of carrier-pigeons and other ingenious devices?—more of a felony than that of the *Three Sisters*? Come, come; this is indeed the devil turned precisian!'

Robert Oakley sat down without speaking, and leaning his face, covered with his hands, on a desk, effectually concealed the workings of his countenance.

'Miss Caroline Oakley's future husband,' continued Conway; 'Mr Neville—some sort of relative of yours, is he not?'

'Yes,' said Hardy, answering for his principal; 'a kind of nephew-in-law.'

'Well, he has arrived in England: I met him in Berkeley Square. It is probable his ship touched at Jamaica, and that he brought some intelligence concerning Sir Martin. I overheard him say, in reply to an invitation to dinner, that he was going to Hampstead this evening. He, too, as your daughter is just of age, will doubtless be for contracting marriage at once, and will thus acquire a right to put awkward questions concerning a certain vanished legacy. Really you will have your hands full unless you at once close with me.'

'The will,' said Oakley, partially looking up, and speaking in a low, shaking voice—'the will is at Hampstead with my private papers. I took it there to—to look at it.'

'Ha! then this charming scheme of mine, or one something like it, is not altogether unfamiliar to that plotting brain?'

'No—no; you mistake: curiosity merely—nothing else. You had better be there—you and Hardy—about eight o'clock. Neville will be gone; or if not, it will be of no great consequence.'

'Bravo!—this is something like! We will be punctual, depend upon it. Come, Hardy, a bottle or two of wine to the success of the rightful heir will not be amiss just now. Good-day, Mr Oakley. "*Facilis descensus Avernii*,"' he muttered with a triumphant sneer as he gained the street; 'or, as our fighting neighbours better express it, "*Ce n'est que le premier pas qui coute*." I thought his facile virtue would not prove obstinately squeamish.'

The excitement produced by the day's events, and especially by the foregoing conversation, and the villanous conclusion to which it pointed, had such an effect on the appearance of Mr Oakley, that on his arrival at his suburban domicile at Hampstead, his daughter, who seemed unusually light of heart, apprehended that he was seriously ill, and suggested that medical advice should be immediately summoned.

'No, Cary, no: a little excited by the panic in the money-market, which will not, however, much affect me; so you need not look so alarmed—that's all. I shall soon be better. Neville, I hear, has arrived. Have you seen him?'

'No, papa; but I have just received a note from him stating that he will be detained in London rather late, and will not, consequently, be here quite so early as he expected. He adds,' continued the graceful and amiable girl with a brilliant blush, 'that he has not only an important favour to ask, but great and pleasing news to communicate.'

The father sighed; and observing that he had dined in the city, ordered wine and some dessert to be taken into his private room, and a fire to be lighted. He soon afterwards retired there.

At the hour appointed, Mr James Conway, accompanied by Hardy, arrived. They found Mr Oakley literally surrounded by papers, which he appeared to have commenced sorting. Conway glanced sharply round, but no parchment or paper resembling a will met his view.

Mr Oakley, as it was growing dark, ordered candles to be brought in; and this done, and his visitors helped to a glass of wine, of which it was quite evident he had himself been drinking freely, for the purpose, doubt-

less, of sustaining his fainting courage, conversation in a subdued tone forthwith commenced.

'I find,' said Oakley, 'that the exact sum in which I am indebted to Sir Martin Biddulph's estate is twenty-four thousand seven hundred pounds. Should a further decline of but one per cent. take place in consols before settling-day, and you know it is anticipated that the fall will be even greater than that, the differences I shall be called upon to pay will amount to about the same sum, a little more perhaps. These immediately pressing demands provided for, I may, I think, recover.'

'A thumping sum, upon my word!' observed Conway.

'A mere trifle when weighed against estates said to be worth upwards of fifteen thousand a year, besides immense personals in family plate, furniture, jewels, and funded cash.'

'Well, well; I am not disposed to be churlish. Anything else?'

'There is Caroline's fortune, which I shall require some assistance to repay: the understanding of course is, that you are to help me completely through my difficulties: partial, insufficient help would merely defer the evil day.'

'I promised to do so certainly; though the price to be paid for such an easy, safe piece of service appears an enormous one. However, my word is my bond; and now, where is the will?'

'Here,' replied Oakley, taking it out of the table-drawer nearest him. Conway's eyes flashed triumphantly, and he made a motion as if to snatch the precious document out of Oakley's trembling hands.

'Stay — stay!' cried the stockbroker, starting back: 'I must have security first that you will perform your engagement.'

'Security!' echoed Conway, gazing with bewildered surprise first at Oakley and then at Hardy. 'What does he mean?'

'That you must put our agreement in writing,' said Oakley with a cunning maudlin leer.

'Oh, is that all? Hand me a pen, and I will do it instantly.'

He scribbled out an undertaking to the effect agreed upon, and handed it to Oakley.

'That will do then?'

'Yes; and yet I am still really trusting to your honour: this agreement could not be legally enforced, could not even be produced.'

'Perhaps not: still, it would give you the means of exposing me, and you do not suppose I should be idiot enough to provoke you to do that?'

'True, you would not certainly. Here it is then.'

Conway seized the will with eager triumph, glanced rapidly over it, to make sure that he was not duped, thrust it with furious glee into the fire, and pressed his boot upon it, as if crushing some living, detested enemy, till it was thoroughly consumed. 'Hurra!' he shouted, carried away by excitement. 'Now, Cousin Francis, I have you on the hip!'

'Hush! hush! for Heaven's sake, or the servants will hear you,' exclaimed Oakley, who had looked on at the consummation of the crime in pallid terror.

After arranging with Oakley for the next day's course of action, Conway and his associate took their leave, and the trembling conspirator was alone with his pale fears. He gazed, after a while, with a kind of simpering

satisfaction at the document Conway had drawn up and signed, and was folding it up, when the voice of an itinerant vender of news loudly announcing a second edition of the 'Courier' 'with full and authentic particulars of a great victory obtained by the most noble the Marquis of Wellington over the French armies in Spain,' struck his ear. He sprang up in wild surprise to purchase the journal containing intelligence so certain to send up the funds, the only effect in regard to which the national triumphs had for years appeared joyful or glorious to him; and in so doing, he heedlessly overturned one of the candles amongst his papers, and, without noticing what he had done, rushed out of the apartment, closing the door behind him. He speedily procured the newspaper, and turned to regain his room, when the fresh air taking effect upon the large and altogether unusual quantity of wine he had taken, caused him to turn giddy, sick, and he would have fallen had he not leaned against the wall of the passage for support. Partially recovering for a moment, and conscious that bed, under such circumstances, was the best place for him, he groped his way up stairs, reached his chamber, and the instant he entered it, fell prostrate on the floor in a state of insensibility.

About a quarter of an hour had elapsed when Caroline Oakley, who was sitting alone in the little front drawing-room, awaiting with some impatience the delayed arrival of her affianced husband, was suddenly startled by a cry of 'fire! fire!' from the servants below, who, the kitchen being at the back of the house, had not, it afterwards appeared, become aware of the conflagration till all chance of arresting its progress was out of the question. 'Fire! fire!' Miss Oakley sprang up, ran to the door, and to her infinite terror found that the lower rooms were in a blaze of flame, which already threw its forked tongues across the staircase leading to the landing where she stood. The papers strewed on the table and about the floor of Mr Oakley's private room had been ignited by the candle he had heedlessly overturned, and as the apartment was full of other easily-combustible material, and the oak panelling which separated it from the passage was as dry as tinder, the fire had spread with almost inconceivable rapidity. Miss Oakley had on a light muslin frock, and to attempt to pass, or even approach the flames in such a dress, would be, she felt, instant destruction. She hastened in wild terror up stairs to her bedroom, and with fingers that almost refused their office, attempted to substitute a thick cloth pelisse for the light clothing she unfortunately had on. Time seemed to fly with bewildering rapidity; while the shouts and cries outside the house, and the crackling and glare of the flames within, increased in violence and intensity with every passing moment: presently a thick, stifling smoke rapidly filled the chamber, impeding still more her trembling efforts; and when at last she had accomplished the change of dress, and groped her way to the door, she found it locked! Distraction! It flashed across her that on entering she had closed and locked the door, as if to exclude some pursuing, living enemy—but the key, where could she have placed *that*? She eagerly groped on the bed, the dressing-table, the drawers—nowhere could she find it. She felt that her senses were rapidly leaving her, when a well-known voice calling wildly upon her name caught her ear. She uttered a piercing scream, and again attempted to reach the door. To burst in the frail lock, to seize her in his arms, wrap

her securely in the thick counterpane he tore off the bed, and bear her swiftly down the flaming stairs, was, for the athletic young seaman who had so opportunely arrived, scarcely more than the work of a minute.

Once in the open air, her fainting spirits rallied; and after one glance of infinite gratitude and tenderness towards her deliverer, she looked eagerly round, and exclaimed, 'My father—where is he?' No one had seen him. The servants, who had got out of the house by the back way uninjured, said that as they knew he had been in the room where the fire broke out, they thought he must have escaped the first. 'No—no—no!' exclaimed Miss Oakley; 'I heard him ascend the stairs more than a quarter of an hour since, and go into his bedroom. Oh, Harry!' she continued with passionate intreaty, 'save him! save my father from so dreadful—so horrible a death!' A warm pressure of the hand answered her, and Neville was starting forward to fulfil her behest, when a fireman grasped his arm and held him back.

'Twould be madness, young man. The old-fashioned, panelled-built house is burning like a match. In another minute the lower stairs will fall in, and the roof soon afterwards. Do not needlessly throw away your life.'

Neville paused: the building was thoroughly enveloped in flames, which were bursting through every window, both front and back. At the instant a wild, despairing cry, a shriek of intense and desperate agony, arose from out the blazing house. The intrepid seaman needed no further urging. He shook off the fireman's friendly grasp, drew his hat down to protect his eyes as much as possible, and the next instant disappeared within the flaming pile amidst the shouts of the admiring spectators. Fighting desperately with the fire, scorched, bruised, blackened, he at length gained the upper landingplace, and, guided by the cries of the terrified man, soon had him in his arms—his attenuated frame was scarcely so heavy as Caroline's—and was again descending the stairs. In vain! The vehement flame beat him back. A moment, and the lower stair fell in, and he could scarcely save himself by springing back and catching at the upper banisters. What was to be done? There was still a chance for himself, by dropping down whilst the sudden falling of the stair momentarily stifled the flames; but the poor moaning wretch in his arms!—could he abandon him? He remembered there was a window looking out on the sloping roof. He swiftly gained it, and a loud shout from the people below greeted his appearance at the aperture. 'A ladder!' he exclaimed; 'there is a chance yet if you only bear a hand.' Twenty persons started off in quest of ladders, and Neville drew himself and his burthen as quickly as possible through the narrow casement. The tiled roof was so sharply sloped, that it was impossible to stand or walk upon it, and he stretched himself down on his back, with his feet reaching to the eaves, still holding the terrified and helpless man in his arms. The heat of the tiles singed his clothes, and he felt that his chance of life was rapidly becoming desperate. At length a ladder was brought, and raised against the house.

'Just under the edge of the roof,' cried the young man; 'I must slide through that flame.'

'Ay, ay,' was the prompt response.

Neville felt for the ends of the ladder with his feet. 'All right! Now, hold firm at the foot. Cling close to me, Mr Oakley,' he added,

'and bury your face as much as possible in my waistcoat. I must have both my arms at liberty. Now then!' With a powerful effort he pushed himself, as it were, over the edge of the roof, slid, as only sailors can, swiftly down the ladder, and safely reached the ground. The hurrahs of the spectators mingled with the crash of the falling roof. The delay of another minute must have been inevitably fatal.

Mr Robert Oakley awoke late the next day with a strange sensation of pain and weakness, confusion of mind as well as illness of body; whilst mingling with, and dominating all, was a dull, aching sense of having lent himself to the commission of a dreadful offence, upon which, during the age of terror he had passed when environed by what appeared impassable walls of fire, he had thought the All-seeing God had passed and executed immediate judgment. That brave young man too, who had rescued him from the devouring flame at the imminent hazard of his own life—Caroline's future husband—a union sanctioned, blessed by the dying prayers of an angel now in heaven—he also would be robbed—No, that money, he remembered, was to be devoted to—to—no matter: he was strangely confused this morning; besides, had not Conway promised—Ah! but would he keep his promise, now that—The current of his darkening thoughts was checked by the entrance of his daughter. She looked charmingly: unusual gaiety danced in her eyes, and her step appeared to have all at once recovered the elastic buoyancy of her young days before her mother was withdrawn from her. 'A letter for you, papa. It was sent to the city; but as it was marked "immediate," and "very important," Danby thought it better to send it here.' Mr Oakley and his daughter, I should have stated, had obtained temporary lodgings the previous evening in the Hampstead neighbourhood.

"Immediate" and "very important," said Oakley; 'who can it be from, I wonder?'

'Here are your spectacles: read it; and when you have done, I have such joyful tidings for you.'

'Joyful tidings for me!' exclaimed the conscience-burdened man with sad emphasis.

'For you—for me—for all of us! You have often heard me speak of my Cousin Alice, beautiful Alice, dear Harry's sister?'

'Yes, very often: but what of her?'

'Only that she is—— But first read your letter.'

'Do you read it for me, Caroline; my eyes seem dim, and I feel confused here.' He touched his forehead with his hand.

'You have not yet recovered from the terror of last night, papa. Harry, who brought me the good news this morning, is not well either: he is a good deal scorched and bruised.'

'Brave, excellent young man! But read, Cary, read.'

'How odd!' she exclaimed the instant she had broken the seal. 'From the very person I was at the moment thinking of. It is dated from Berkeley Square, and states that Mr Severn desires you to call there at four o'clock to-day, and bring Sir Martin Biddulph's will with you, as he has had a strange visit from a Mr Conrad—no; Con—Con—I cannot well make out the name.'

'Conway!' suggested her father with a suppressed groan.

'Yes, Conway, who is to call again at that hour. You will go of course, papa?'

'Yes; it is essential that I should.'

'Then you had better get up at once: I shall go with you.'

'You go with me! What, in Heaven's name, for?'

'You will know, dear papa, when you get there,' replied the joyous girl, kissing his forehead, and tripping lightly away. She stopped with the half-opened door in her hand, and looking back, said with merry archness, 'You know, I daresay, that Mr Severn is married; but you don't know who the Lady of Oatlands is—not yet, but you shall presently, if you are a good boy.' She vanished, and her gay laugh rang jocosely along the passage, as she hurried off to order a coach, and prepare herself for the ride to Berkeley Square.

'Lady of Oatlands!' murmured Oakley, as he got out of bed. 'What can she mean? Some foolish jest, I suppose. Dear me, I seem strangely giddy and bewildered. The fire—the fire, no doubt; and now I think of it, what so natural as that the will should have been burned with other papers and documents then—to be sure; and yet,' he added with a confused look, and mechanically rubbing his forehead, 'that is not, I think, what we agreed to say. Let me see. Lady of Oatlands!' he continued, wandering again. 'She was speaking just before of Neville's sister, my brother Richard's child, Alice: surely she could not mean— No—no; that—that would be too deep damnation!' He shook like an aspen at the thought that had arisen in his mind, and caught wildly at the bedpost for support. With difficulty he dismissed the idea as improbable and absurd; and hurrying his preparations, by the time Caroline returned, had finished his toilet, and was ready to set out.

'Now then, papa, the coach is at the door. Must we go to the city for the will? It is full late already.'

'No, dear—no; I will explain. There is no occasion to go to the city.'

Both were so entirely absorbed by the quick thoughts which glanced in swift succession through their minds—his, indistinct, gloomy, terrible, as Night and Fear; hers, light and joyous as flowers waving in the fragrant breath of golden summer—that no word was spoken by either till they arrived in Berkeley Square.

'Here we are, papa!' exclaimed Miss Oakley, arousing her father from his dull reverie.

He slowly descended from the coach, dismissed it, and leaning heavily on his daughter's arm, entered the magnificent mansion, and was immediately ushered up stairs into the drawing-room.

The company, which rose at their entrance, were, when the servant announced their names, in a state of great, and it seemed painful excitement. The youthful bride, Mrs Severn, was seated between her husband and mother, who each held one of her hands. Her sweet face was flushed and tearful; and an expression of angry surprise, not unmingled with alarm, was visible not only upon Mr Severn's countenance, but on that of Mrs Richard Oakley, whose husband was engaged in earnest, and, as it seemed, agitating conversation with Mr Neville. At a little distance sat Mr Conway, in an ostentatiously-defiant attitude, and insolent expression of

face; beneath which, nevertheless, a person accustomed to note the exterior signs of human emotion could not have failed to detect hot and cold flushes of undefined apprehension flitting to and fro. Hardy, by whom he was accompanied, stood a little behind him, his sinister features wearing their usual callous, God-and-man-defying aspect.

But all this Caroline Oakley heeded not, neither did her father. She only saw her beautiful Cousin Alice; it was more than two years since they had last met, and she speeded with eager fondness to embrace, to congratulate, to lavish on her the joyous tokens of her affectionate, loving admiration and delight. As for Robert Oakley, he saw at first but a mass of faces, menacing, stern at least, he thought, except, indeed, that of his brother—his brother so coldly thrown off, contemned, abandoned, many years before, but who now stepped forward and shook him warmly by the hand as he guided his tottering steps to a chair. What could it all mean? His agitation, his bewilderment, was pitiable. He rose from his chair, and seemed about to cross over to Mr Conway, then sat down again, got up, rescued himself in the blindest confusion and dismay.

'Calm yourself, Mr Oakley,' said Mr Severn. 'This matter will, I have no doubt, be speedily cleared up. You of course received my note?'

'He did,' replied Caroline Oakley, who, puzzled and dismayed by the strange aspect of the circle of faces round her, except, indeed, that of Neville, had rejoined her father. 'We are here in compliance with the request it contained.'

'That being so,' continued Mr Severn with relaxed sternness, 'this strange misapprehension can be at once terminated. The will, sir, which my uncle, Sir Martin Biddulph, left in your custody, and of which I have long known the purport, you of course have brought with you?'

'The will!' murmured Robert Oakley, gazing with a perplexed and terrified expression at the speaker—'the will!'

'Yes, sir; I speak plainly I think. The will of Sir Martin Biddulph, left, as he informed me, with you.'

'Ah yes, I remember,' rejoined the bewildered man, rubbing his forehead, as if to recall some circumstance to memory, and looking fixedly at Mr Conway, who appeared purposely to avoid his gaze. 'The will—it was burned last night in the dreadful fire!'

'Burned!' cried Mr Severn—'burned! Why, this is a new invention! You said just now, Mr Conway, and the person near you confirmed your words, that Mr Oakley declared no will of Sir Martin's had ever been left with him.'

'Precisely; but his intellect seems deranged.'

'Not left with me,' exclaimed Oakley, as if suddenly recalling what to that moment had escaped his memory. 'True—true—not left with me; true, I remember now, that was it.'

'Father! father!' exclaimed Caroline, throwing herself on her knees before him in an ecstasy of agonized apprehension, 'what dreadful meaning lies concealed in your words?'

'Nothing, my child,' he answered, gently raising her. 'Not left with me—no, no—burned, as I told you: how could I help it?'

Exclamations of surprise, rage, and indignation, burst from the lips of his brother and Mr Severn.

'Stay, stay, do not curse me, sir; do not upbraid me, Richard: I will make all right. That girl, that lady, is she your child?'

'Yes, and the wife of the man you have carelessly or wilfully beggared.'

'And did I not hear some one say, as we came along, that the funds had risen three per cent. this morning?'

'They had at two o'clock at all events,' said Hardy soothingly.

'Good; and that lady is your daughter? So, Mr Conway, I shall not want your assistance, and everything will be right again—quite right.' He laughed faintly, and stood up, gazing with a vacant, elated expression upon his auditors. Their stern and indignant looks appeared to recall his wandering mind to a sense of the reality of the scene before him. His filmy eyes lightened with momentary intelligence; he burst into a paroxysm of tears, and threw himself into the arms of his brother, exclaiming, in the last coherent words he ever uttered, 'Forgive me, brother; oh forgive me. I helped to burn the will last night! He, Conway, paid the price of my soul; and I, miserable villain that I am, who killed my wife, have now ruined you, yours, Caroline—all that ever loved or trusted me.' Violent convulsions seized him, and he was borne out of the apartment, followed by his weeping, horror-stricken daughter.

'You hear?' said Mr Severn, addressing Conway.

'I have heard,' replied that person, quickly recovering his momentarily-faltering hardihood—'I have heard the ravings of a lunatic. You heard him declare a minute before that no will had been left with him. That, no doubt, is the fact.'

'It is all raving nonsense what he says about burning a will last night,' said Hardy with cool effrontery; 'that I can testify.'

'Scoundrel!' exclaimed Mr Severn, pale with passion.

'Never mind, Hardy,' said Conway with triumphant malice; 'losers, you know, are privileged to call names. But it is time this business should be terminated. Either, my sweet, amiable, *virtuous* coz, produce the will you speak of, or, like a sensible fellow, give possession at once to the undoubted heir-at-law. I still adhere to my promise of allowing you a handsome annuity for life—on condition, of course, that my unquestionable right is at once and frankly admitted.'

'I will accept no gift from you,' replied Mr Severn; 'and I will assuredly surrender nothing till I have consulted Sir Martin's solicitor, whom I momentarily expect.'

'Quite right, coz,' rejoined Conway; 'and if that astute gentleman—Mr Smart, I believe; firm of Smart and Figes—does not long delay his appearance, I can have no objection to your remaining here till he comes'—

This insolent speech, and the angry retort rising to Mr Severn's lips, were both checked by the footman's announcement of 'Mr Smart.'

A very properly-named gentleman indeed; and, moreover, spruce, neat, spotless, as if he had just stepped—powdered hair, pigtail, polished Hessian boots, bottle-green coat, light-flowered waistcoat, gold snuff-box, and all—out of a show-glass. One, too, of the most polite, the most courteous of gentlemen; bland as summer in speech; in action, it was reported, keen as the north wind: a bachelor withal, although a great admirer of the gentler sex, for whom he invariably manifested unbounded respect and deference. He glided courteously round the circle, tendering his compliments or his

snuff-box alternately to all; which done, he had leisure to gaze round in astounded recognition of the perplexed and angry countenances by which he found himself environed.

'Very extraordinary, upon my word! Quite, it should seem, "*à la mort*." Sir Martin was unquestionably a most estimable gentleman, and of course it is proper and natural his death should excite grief—natural and proper grief, that is; for I hold excess, even of virtuous emotions, to be unchristian, and therefore'——

'It is not *that*,' interrupted Mr Severn impatiently, although he still hesitated to ask the question which trembled on his lips.

'Not that! Then what, in the name of fortune, *can* it be? Something excessively melancholy and grievous I should say,' added the solicitor, helping himself to a comfortable pinch, and bowing with elaborate courtesy to Mrs Severn, 'to throw a gloom over the features of *your* husband—excuse my freedom of speech, madam, pray; it was quite involuntary—spontaneous, I assure you—and the possessor of sixteen thousand a year. Very melancholy and grievous indeed; quite a curiosity, I should say, and I am extremely anxious to make its acquaintance. I think I perceive,' continued the oily man of law, finding no one reply to him—'I think I perceive the cause of this passing cloud. Don't you think, sir,' he added, approaching Mr Conway with his extended snuff-box, and speaking in the blindest tone imaginable—'don't you think, sir, that all matters relative to the annuity bequeathed you by Sir Martin's will would be better, more pleasantly, arranged at my office?'

Mr Conway smiled, and immediately said, 'You know, Mr Smart—none better, I am sure—the position and rights of an heir-at-law?'

'Unquestionably I do. He succeeds to the real estate, and so much of exclusive personals, though there are conflicting decisions, as pertain to the proper maintenance of his condition. The family plate and furniture of Oatlands, and this mansion, for instance, would, in my opinion, pass to you with the reality, as the late Sir Martin Biddulph's heir-at-law, were you not—as we all know you are—and really were it not that the fortunate legatee is my excellent and esteemed young friend—if he will permit me to call him so—Mr Severn, I should greatly regret the circumstance—barred from the succession by the amiable baronet's will.'

'Have you the original draft of that will?' said Mr Severn.

'Original draft! No, certainly not. Of what possible use would it be?'

'I thought perhaps, helped with your testimony, it might avail; but as it is, we are, it seems, beggars!'

'Eh! what!' exclaimed Mr Smart, springing briskly up from the chair in which he had just seated himself. 'Eh! what!'

'The will is destroyed—burned!' said Mr Severn bitterly.

'What! eh!' again ejaculated the lawyer, wheeling half round, and facing Mr Severn.

'The late Sir Martin Biddulph left no will,' said Mr Conway from the opposite side; and Mr Smart wheeled back again, once more repeating, 'What! eh!'

One seemed disposed to further enlighten him, and he was compelled himself to renew the conversation. 'Upon my life this is very extraor-

dinary. Will you, sir—will your ladyship—I beg pardon, I am wrong—premature, at all events. The baronetcy is, I am aware, extinct, in consequence of the failure of heirs in the male line; but it will be renewed, madam, no question of that, looking at the steady support given to the minister by the late excellent baronet. Still I am premature; but will you, madam, prevail on some of these gentlemen to explain?’

‘The explanation is as easy as it is conclusive,’ said Mr Sewern, and he related what had previously occurred.

‘Remarkable, madam, is it not?’ said Mr Smart when the narration was finished. ‘Quite a drama in itself—quite so.’ Harry Neville’s keen eye noticed that the revelation just made had not in the slightest degree diminished the lawyer’s deferential manner towards his sister. ‘There are, you perceive, all the usual *dramatis personæ*: *la jeune première*—a most profound bow; *la dame noble*—a less elaborate inclination towards Mrs Richard Oakley; and—and’——he glanced towards Mr Conway; ‘but perhaps it might be deemed discourteous to pursue the analogy further.’

‘What do you mean?’ exclaimed that gentleman with assumed fierceness, though evidently discomposed by the calm assurance of the lawyer.

‘I will tell you,’ rejoined that courteous personage with his pleasantest smile. ‘Did you ever remark—but of course a gentleman of your intelligent observation must have often done so—that great rogues—nothing personal, I assure you, Mr Conway——this Oakley is of course, as you represent him, a slandering lunatic; but still, as a general rule, you must have observed that great rogues are almost always great fools? In this very case now,’ continued Mr Smart, resuming his seat, crossing his legs, and evidently greatly enjoying the eager curiosity which hung upon his words—‘in this very case, supposing—only supposing, mind—that what we have heard is true, how, except upon the principle of “*Quem Deus vult perdere—prius demetut*”—correct, I believe, Mr Severn—or would you say, “*primum?*”’

‘Go on—go on.’

‘How else, I say, could ordinarily sane persons imagine that the old-established firm of Smart and Figes would have left such an important document to a single chance of fire or other accident. The truth is, gentlemen—I beg ten thousand pardons—ladies and gentlemen; and, by the by, Mr Conway, you have been in Paris I know—it appears to me that the politest nation in the world, as they call themselves, and in fact are in many respects, are strangely out with their “*messieurs et mesdames.*”’

‘The devil fly away with you and the politest nation into the bargain!’ exclaimed Conway; ‘what is it you are driving at?’

‘Take it coolly, pleasantly, Mr Conway, as I always do,’ replied the lawyer with super-blandness. ‘The plain truth, then, since you will have it, is, that the will of Sir Martin Biddulph was executed, as all wills ought to be, in duplicate; and that here,’ drawing a neatly-folded parchment from his pocket, ‘that here is the counterpart!’

The surprise, joy, exultation, mortification, and rage, excited in the breasts of that auditory by this announcement may be imagined better than described. Mr Conway, followed by his confidant, left the house in an agony of rage and disappointment. A few days’ reflection brought, however, enforced calm and resignation. He accepted the considerably-

augmented annuity proffered by Mr Severn, and sought employment and distinction in the ranks of the British armies then engaged in the terrific struggle with the French legions in Spain. He found both there; and in the bitter fight before Toulouse, the Gazette said, a glorious death. Hardy was never again heard of. He vanished into one of the sinks of society, and doubtless perished there.

The winding-up of the affairs of Mr Robert Oakley, who, it was soon authoritatively declared, had been smitten with permanent lunacy—he had received a heavy blow on the head, it was ascertained, doubtless at the fire—did not, thanks to the rise in the funds, and to the withdrawal of all claims due to the estate of Sir Martin Biddulph, wind up so disastrously as had been anticipated. After discharging all claims, including that directed by the dying commands of her mother to be paid, the large sum of which the firm of Cumings, Brothers had been legally defrauded, Caroline found herself possessed of about £12,000—not a very splendid fortune, but sufficient, with the profits of her gallant, single-minded husband's profession, not only for her own and his moderate wishes, but for the future advantageous placing out of their rather numerous progeny; and for the present help and support of Caroline's God-stricken parent, who, helpless, dejected, utterly crazed, but harmless, passed his days in roaming about the grounds and garden, ever muttering to himself fantastic schemes of aggrandisement by successful speculations in the stock and money markets. He died at the age of fifty-eight, making no sign except that of his life—surely a vivid and instructive one to all who have the will and faculty to read it aright.

Mr Smart's anticipation respecting the baronetcy was very speedily realised; and Sir Francis and Lady Severn, in the enjoyment of their mutual affection, their brilliant fortune and position, might be reckoned amongst the most favoured of mankind. There was no likelihood, either, that this baronetcy would lapse, by failure of heirs in the male line. A very happy woman, doubtless, was Lady Severn, for she was good and amiable as fortunate; but anything like so *proud* a woman as her mother, Mrs Richard Oakley, she assuredly was not, especially when that excellent lady had her quiver full of grandchildren. But it is time to close this somewhat garrulous narrative of long since passed, and, except to a few persons, almost forgotten events; and I perhaps cannot better do so than in the words of Mr Twynham, who frankly admitted—I think it was on the day after the christening of the fourth, perhaps the fifth child—I am not sure which—that 'gentleness, guilelessness, simplicity, beauty, and grace, may insure happiness even in extremely unequal marriages—a truth exemplified in the domestic lives of Sir Francis and Lady Severn.'

'An example, however, which ought not to be set down as a precedent,' said Mr Smart, who was present; and I agree with him.

CARTHAGE AND THE CARTHAGINIANS.

Thus, as the greatest seafaring, commercial, and colonising nation of modern times, no people of antiquity offers so many points of interest as the Phœnicians. Located on a narrow strip of land, lying between the ocean and the ranges of the Lebanon, and forming part of the Syrian coast, in width nowhere exceeding five geographical miles, and in length not above thirty-five, this people, through the sole agency of commerce and navigation, spread their dominion not only over Cyprus and Crete, and the smaller islands of the Archipelago in their more immediate vicinity, but along the shores of the Mediterranean—in Northern Africa, in the islands of Sardinia and Sicily, and in the southern and western parts of Spain. But beyond even these points the trading vessels of the Phœnicians reached shores and established commercial depôts in countries the names and locality of which were unknown to, and by them carefully concealed from, their cotemporaries—as, for instance, the island of Madeira, the coasts of England and Ireland, and the Baltic coasts of Russia. Around Sidon and Tyre, and many other Phœnician cities and colonies, the Old Testament has shed the glowing tints of Oriental phraseology, familiarising us with their splendour and their greatness; but the name of Carthage, the mightiest of the Phœnician colonies, which for a while held in check even the growing power of Rome, belongs to profane history alone.

According to an ancient inscription in the Phœnician language, which says, 'We have fled from the robber Joshua, the son of Nun,' and which was discovered in Numidia A. D. 540, the first Phœnician colonies in Northern Africa must have been founded as early as the year 1490 B.C.—a circumstance which is by no means improbable when we consider that in the book of Joshua Sidon is already mentioned among the mighty princes, and that the Phœnician colonies of Utica, Hadrumetum, Hippo, Leptis, and others, are known to have existed on the northern coast of Africa centuries before Dido there founded the city whose fame was soon to eclipse that of all the older daughters of Sidon and Tyre. According to tradition, Dido or Elissa, with whose name Virgil has taken such strange liberties, was the daughter of a king of Tyre, who, driven away from that city by the cruelty and avarice of her brother Pygmalion, the murderer of her husband, first landed on the coast of Cyprus, accompanied by numbers of her countrymen, of various ranks, who, like her, were flying

from the power of the tyrant; and having there swelled the band of her followers with a priest from the temple of Zeus, and eighty females, who had been devoted to the service of the goddess Astarte, but who became the mothers of the future colony, proceeded thence to the African shores, and landed in the vicinity of Utica. Here Dido, assisted by the inhabitants of the kindred colony, succeeded in obtaining from the Libyans—the African people who held possession of the land—the grant of a certain extent of territory on the shores of the great gulf formed by the promontories of Mercury and Apollo (now Cape Bon and Cape Zibib), for which she agreed to pay a yearly tribute. And here, about the year 878 B.C., and 125 years before the foundation of Rome, she founded the city of Carthage, which soon gave promise of its future greatness. The annual tribute was at first punctually paid. The people of the neighbouring territories were induced, by the offer of great commercial advantages, and of the rights of citizenship, to join the new-comers, and every means for promoting the prosperity of the new settlement so effectually taken, that even during the lifetime of Dido the city had acquired so much importance in the eyes of the neighbouring nations, that the hand of the princess was sought in marriage by a powerful Numidian prince, who threatened to have recourse to violent measures in case his suit were not accepted. To secure the independence of her new-founded city, and to keep her faith to her deceased husband, Dido, acting in accordance with the received opinions of her country, and the principles of her religion, threw herself into the flames of a funeral pyre, which she had ordered to be lighted for her, and was ever after worshipped as a deity by her people.

On a promontory, connected by a narrow isthmus with the mainland, and about fifteen miles distant from Tunes (now Tunis), arose the city of Carthage. On the isthmus, and forming a barrier between the promontory and the continent, was the fortress or castle called Byrsa, situated on a rock, the summit of which was crowned by the temple of Æsculapius, and surrounded by a triple wall, the outermost range of which joined the walls of the city, which had a circumference of about twenty miles. On the north and east the city was bounded by the ocean; on the south by the great lake on which was situated the city of Tunis; and on the western side, which faced the interior, it was defended by a range of cliffs stretching across the isthmus, and which could only be traversed by narrow passes artificially cut in the rock. On the north-west the river Bagradas, the present Merdja, fell into the sea, the sands of which have blocked up its ancient mouths, and somewhat altered the conformation of the coast. On the eastern side of the peninsula was the excellent harbour,* formed by an inner and an outer basin; the former of which, called Cothon, was dedicated exclusively to the ships of war, and jealously guarded against the intrusion of foreign vessels. This basin was separated from the outer harbour by a double wall, with only one entrance for admitting the ships, and with sluices to let the water in and out; and in the centre, in front of the entrance from the outer basin, was an elevated island, commanding a full view of the ocean. The outer basin, which was open to foreign vessels, was surrounded by fine

* With regard to the exact locality of the harbour of Carthage, the different writers on the subject are somewhat at variance. We have here followed the views adopted by Bütticher in his *‘Geschichte der Carthager.’*

broad quays, at which they unloaded their cargoes; and the entrance, which was seventy feet in width, was like that of the harbour of Tyre in times of need—closed by an iron chain drawn across it. Around the inner basin were situated the naval storehouses and the docks, the latter capable of containing 240 ships of war; and in front of each dock and each magazine, and on the island in the centre of the basin, were erected columns of the Ionic order, which imparted to the whole an air of grandeur and stateliness. The fortified works of Byrsa were of an equally stupendous and magnificent character. Each of the three walls was 60 feet high and 30 feet deep, and at intervals crowned with castles of equal height. Within their depth, and opening on the inner sides of the walls, were large vaults, which served as stables and fodder-magazines for 300 elephants; and above these vaults, also practised in the walls, was similar accommodation for 4000 horses, and barracks for 4000 cavalry and 20,000 foot soldiers. Three streets, formed by houses six storeys high, led from the foot of the fortified hill to that part of the city which surrounded the harbour and enclosed the magnificent temple of Apollo. In the other quarters of the city situated on the northern side of the peninsula, and called Megara, the houses were not so closely built, but were separated from each other by verdant hedges and beautifully-cultivated gardens, the whole comprising a population of 700,000 souls. Such was Carthage in the height of her glory; but to this she attained gradually and slowly, and not always by fair means.

The first attempt at aggrandisement was directed against the Libyans, who had ceded to Dido the territory which the new-built city occupied. The annual tribute, which was at first regularly paid, was withheld as soon as the Carthaginians felt themselves strong enough to maintain their want of faith by strength of arms; and in the wars which ensued in consequence, they succeeded in extending their dominion not only over the territory of the agricultural Libyans in their immediate neighbourhood, but also along the north-eastern coast, as far as the frontiers of the Greek settlement of Cyrene, a territory entirely inhabited by nomadic tribes. With the settling of the limits of the Carthaginian territory and that of Cyrene is connected a tradition which records one of the few acts of self-sacrificing heroism relative to the former republic of which posterity has obtained knowledge. A dispute having arisen between the two republics on the subject of their relative limits, it was agreed that two young men should set out at the same time from each city, and that the point at which they met should decide the boundary-line between the two states. The Carthaginians—two brothers named Philani—having made most speed, and thus insured to their countrymen the greatest extent of territory, their antagonists complained of foul play, and refused to abide by the agreement unless the brothers would attest their honesty by the sacrifice of their life. The Philani consented, and were buried alive on the spot where the meeting had taken place. The Carthaginians erected two altars above their graves, which, under the name of *Aræ Philanorum*—the Altars of the Philani—ever after marked the boundaries of Carthage towards the east.

In course of time the Carthaginians pushed their conquests further towards the south, so as to embrace all the lands north of the Triton Sea (supposed to be the Shikah el Low-deah, or Lake of Marks, in the present

regency of Tunis). On the northern coast their dominion stretched westward as far as Hippo Regius (on the boundary-line of the subsequent regencies of Tunis and Algiers), the residence of the kings of Numidia, who sometimes were the allies of Carthage, and sometimes were reduced to a kind of semi-dependence of that state; but beyond this point Carthaginian settlements were made along the whole northern coast, as far west as the Straits of Gades (now the Straits of Gibraltar), and even on the west coast of Africa. The extent of territory entirely subjugated by Carthage is computed at about 1600 geographical miles, and seems to have been very nearly co-extensive with the present regency of Tunis, with the exception of tracts of land along the north-eastern coast occupied by the old Phœnician colonies—such as Hippo Zarytis, Utica, Hadrumetum, Leptis, and others; and also by Greek colonies—such as Cyrene. The Libyans, who occupied the territory stretching from the Triton Lake and the Lesser Syrtis (the Gulf of Gabes) to the confines of Numidia (the territories subsequently embraced within the regency of Algiers), were gradually subjugated, and in some measure denationalised, by the establishment of Carthaginian colonies throughout their country. They ultimately acquired the name of Libyphœnicians, and adopted the language of Carthage, though they never submitted willingly to the yoke of their conquerors. Their country was the great corn-magazine of the Carthaginians, whence the latter drew the immense supplies necessary for their commercial purposes, and for the maintenance of the numerous armies which their system of extensive conquest and colonisation obliged them to keep on foot; and the natural fertility of the country was considerably increased by the agricultural improvements introduced by the Carthaginians, who were as distinguished for their knowledge of husbandry as for their achievements in commerce and navigation. The forests and mountainous districts within this territory were inhabited by lions, panthers, elephants, and other wild beasts, which, however, diminished in number as cultivation advanced; the meadows and lowlands were covered with herds of horned cattle, with troops of horses, and large flocks of goats and sheep; while the carefully-cultivated fields presented to the eye rich harvests of corn, and wine, and olives; and the gardens, surrounding the houses in the numberless cities and villages which covered the land, abounded in figs and pomegranates, and other luscious fruits. The territory here described was divided into two provinces—Zengitania to the north, and Byzazene to the south; the latter of which was also denominated Emporia, on account of the numerous open commercial cities established there as entrepôts for the commerce of Carthage with the interior of Africa.

The old Phœnician cities, situated along the coast, being strongly fortified, and forming originally a kind of confederacy—though never under the dominion of one compact central government—at once entered into friendly relations with Carthage, resisting, however, any projects of encroachment on her side; but ultimately they acknowledged her supremacy, though they always appeared more in the character of allies than of subjects. To the south of the Triton Lake, along the Greater Syrtis (Gulph of Sidra), and further inland, dwelt nomadic tribes of warlike habits, chiefly subsisting by sheep-breeding, and leading a wild and irregular life. These were also in a certain measure brought under the influence of Carthage, and were of much

importance to her, because through the territories occupied by them was carried on a great part of her trade with the interior of Africa. Through them passed the caravans which brought to Cyrene the wine that Carthage exchanged with this colony for silphium, laudanum, and nard; and through them also passed the caravans which traded with Thebes, in Upper Egypt, and with the countries bordering on Ethiopia, whence the Carthaginians drew supplies of negro slaves, and whence also they derived those precious stones which became known in the countries, of the West under the name of Carchedonians. It is even supposed that the Carthaginians, in pursuance of commercial advantages, pushed as far as the river Niger, and that they furnished the negro tribes of this region with salt, from the great salt pits of the desert, in exchange for the ivory and gold dust of their country. Westwards, the dominion and influence of Carthage were less extended, for the nomade nations who inhabited the territories lying in this direction were a fine warlike race, who bravely resisted the encroachments of the Carthaginians, and were much assisted in their resistance by the natural features of their country, which is mountainous, and irrigated by several rather considerable rivers. This people, divided into different tribes, each governed by its own ruler, though never entirely subjugated by Carthage, often entered into intimate alliances with the republic, and sometimes were forced to pay tribute to it. At other times, however, they joined the enemies of Carthage, and Masinissa, king of the Massyli, the tribe which bordered on the Carthaginian territory, contributed almost as much as Rome to the destruction of the republic.

Before Carthage had subjected to herself all the African territories of which mention has just been made, she began to establish colonies in the western islands of the Mediterranean, with a view to securing to herself the exclusive trade in these seas, or at all events such advantages as should place her beyond the competition of the Greeks, Romans, Etruscans, and Massilians, who were all contending for maritime supremacy. Taught by her own experience and that of many of the older Phœnician cities, she had also learned that continental colonies were liable to be subjugated by neighbouring states, or were likely, in the event of their attaining a certain degree of wealth and power, to desire to render themselves independent of the parent state; she therefore looked upon these island settlements as the strongholds of her commercial power, and also as safe outlets for her increasing population; while, independently of such considerations, the fertility of their soil and the rich variety of their products rendered them most valuable acquisitions. Sicily and Sardinia first attracted the attention of the Carthaginians. The latter island was, at the time of the first settlement of the Carthaginian colonies, inhabited by tribes of Grecian and Corsican extraction, who were soon subjugated, and the whole island, with the exception of the mountainous districts in the interior, was brought under the dominion of Carthage. Though more mountainous, Sardinia was not less fertile than Sicily; and in addition to its agricultural riches, which were greatly increased by the skill and industry of the Carthaginian settlers, possessed valuable copper, iron, and silver mines; as also others from which the Carthaginians are supposed to have derived the precious stones with which they carried on so lucrative a trade, and particularly the species called Sardonyx, which was highly

prized in antiquity. In Sicily, the richest and most fertile of the western islands of the Mediterranean, the Phœnicians had at a very early period established commercial settlements. With these the Carthaginians immediately entered into commercial relations; but having subsequently founded colonies of their own in the island, they gradually made themselves masters of the kindred colonies also, and extended their sway over as great a part of the island as they could gain possession of, in defiance of the Greek colonies settled in it before their arrival. With these colonies, and more particularly with Syracuse, Carthage maintained for almost two centuries a sanguinary struggle for supremacy in Sicily, and through them also she was brought for the first time into collision with that republic which was to humble her pride in the dust.

The Balearic Isles, and the other smaller islands in the west of the Mediterranean, where also the Phœnicians had previously established colonies, were likewise seized upon by the Carthaginians, and supplied them to a certain extent with honey, wax, and manufactured goods, and in a lesser degree with oil, wine, and slaves. Corsica, in particular, furnished a considerable number of slaves; Melita (Malta) was prized for its excellent harbours, and the Carthaginians perfected the manufactures for which the island had been celebrated since the foundation of the first Phœnician colonies; Gaulos (Gozzo) also was distinguished for the excellent anchorage which it afforded, and therefore much esteemed as a maritime station; and in this, as in all the other islands, the increased prosperity which was the consequence of the enterprise, industry, and activity of the Carthaginians, made ample returns to the inhabitants for the advantages which their conquerors derived from their possession.

Although Carthaginian colonies were likewise spread over a great part of the continent of Europe, Spain was the only continental country in which they aspired to be more than commercial entrepôts. In this rich land—whence the Phœnicians had, for centuries before the founding of Carthage, drawn, in return for their manufactures, the bars of silver which they exchanged in Arabia Felix for gold, there ten times less in value, and which, again, they disposed of in the countries where gold was most highly prized*—in this rich land, which, besides its mineral treasures, yielded corn, and oil, and wine, and wax, and fine wool in abundance, the Carthaginians endeavoured not only to found emporia, but to gain new provinces. For this purpose they first entered into friendly relations with the kindred colony of Gades (Cadiz), the most important of the early Phœnician settlements in Spain, and which exercised a kind of supremacy over the confederated Phœnician cities in the south-western part of that country; but they do not seem to have conceived the plan of conquering the whole of Spain until after they had lost Sicily and Sardinia, and found themselves engaged in a second war with Rome. That Carthaginian settlements were made on the western shores of Europe also, we have historical authority for believing; but so jealously did this people guard the secrets of their own enterprise—so fearful were they lest others should participate in the benefits of their discoveries—that the names and exact localities of many of these settlements remain unrevealed to this day. From the easier achievement of

* Agartharchides, as quoted by Bochart and Heeren.

CARTHAGE AND THE CARTHAGINIANS.

establishing colonies on the coasts of Gaul (France) and Italy, they were debarred by the jealousy of the Greeks, the Etruscans, and the Romans, who, bound by commercial treaties with the Carthaginians to desist from trading with the countries in which the latter had established their influence, retaliated by equally prohibitive measures with regard to those countries in which they had themselves acquired a priority of right. But, situated in the centre of the Mediterranean, Carthage spread her power eastward and westward; and as in course of time she came to be almost sole mistress of the sea, even those countries that resisted her endeavours to establish colonies on their coasts, were made to contribute to her prosperity and her greatness, because her fleets alone could furnish them with many of the articles of which they stood in need.

Concerning the maritime trade of Carthage in general, there are more authentic records than concerning her inland trade with Africa; for the port of the capital being open to foreign traders, and a number of Greek merchants having, in consequence, settled in the city, the secrets of this trade could not so easily be kept, and the knowledge was probably transmitted through them to the Greek writers, to whom we are chiefly indebted for all we know concerning the history of Carthage. The extent of her colonies in some measure affords an insight into the extent of her navigation; but besides these countries, her ships visited the coast of Guinea, and most probably the British Isles and the coasts of Prussia, and a lively maritime trade was likewise carried on with Tyre and other Phœnician cities; as also with Cyrene and Alexandria, and with some cities of Gaul: but with no people was the commercial intercourse of the Carthaginians so animated as with the Romans and Etruscans, and all the other inhabitants of the countries washed by the western waters of the Mediterranean. The staple articles of the carrying trade of the Carthaginians were partly the raw produce of their African and other colonies, as also of the interior of Africa, and of those distant lands which their ships alone visited, and partly their own manufactures and those of their colonies. Libya and Sardinia furnished them with immense quantities of grain, with which they supplied the Romans. To Rome also they disposed of the pomegranates—which among the Romans bore the name of Punic Apples—and of the figs for which the Carthaginian territory was so famous. Wine and oil they carried to the western coasts of Africa, and also to Cyrene; and as their own possessions did not furnish these articles in sufficient quantities, they drew additional supplies from Italy and the Greek settlements in Sicily. The dates and the lotos fruit, from the countries bordering on the two Syrtes, as well as the excellent fruits of the Balearic islands, also formed articles of Carthaginian commerce; and the silphium, the laudanum, the nard, the salt, the ivory, the gold, and the precious stones already mentioned, were not only consumed by themselves, but by them distributed through all the countries with which they traded. To the articles already enumerated must be added alum from the island of Lepara, probably iron from the mines of Athalia (Elba), and tin from the British Isles—the Cassiterides, or Tin Islands of the ancients, being generally understood to have been the same as the Scilly Isles off the coast of Cornwall, whither, an ancient Greek writer relates, the Britons brought great wagon-loads of tin to be shipped on board the Carthagi-

nian vessels. Around their trade with amber, which was also numbered among their articles of commerce, still greater obscurity reigns; and it remains doubtful whether they really resorted to the shores of the Baltic for this precious gum (which, like all fragrant gums and spices which served for burnt-offerings to the gods, was highly prized by the ancients), or whether they obtained it indirectly through the Britons. Among the manufactured goods with which they traded, fictile and iron wares, Egyptian linen, and the beautiful products of the looms of Carthage and her colonies, deserve especial mention. The latter bore so high a character in antiquity, that a Greek named Palemon wrote a book upon the subject; and the dyes of Carthage are also said to have exceeded in beauty even those of Sidon and Tyre. In addition to the many articles which we have here mentioned, the Carthaginians also trafficked in human beings; and the extent to which this lucrative branch of trade was carried on may be judged from the circumstance that Hasdrubal, a Carthaginian general who served in the second war against Rome, bought at one time no less than 5000 slaves, who were employed to man the fleet.

Much of the information, however, now possessed relative to the commerce of the Carthaginians is conjectural, and deduced from circumstances which seem to warrant such deductions, but is not obtained from authoritative records; for such was the mystery under which this people shrouded their commercial undertakings, that their contemporaries could judge of their enterprise solely by its wonderful results, and could only envy, not emulate, their commercial prosperity. The extraordinary jealousy with which they endeavoured to preclude the possibility of foreign competition, is already strongly evidenced in their first commercial treaty with Rome, concluded in the year 509 B.C., after the Romans had founded the seaport town of Ostia, and had begun to put forward claims to a share in the commerce of the Mediterranean. This treaty, as given by Polybius, stipulates that neither the Romans nor their allies are to navigate beyond a certain point on the African coast, unless they should be forced beyond it by adverse winds or pursuing enemies; that they are to desist from trading with the inhabitants of the coast, and are to refrain from taking anything from them, except such articles as they may require for provisioning their ships, or for performing their sacrifices to the gods; and it forbids their abiding more than five days in the land.

Such was the nature and character of that commerce which raised Carthage to a height of power that excited the envy of the leading nations of antiquity, and the ultimate humiliation of which by the Romans was the first step made by the latter towards that world-dominion which has made their name eclipse that of all their predecessors and rivals in civilisation. We must now throw a glance at the political institutions of the trading republic, and at the relation which existed between her and her colonies. True to their origin, the Carthaginians transplanted to the shores of Africa all the institutions which distinguished the rich trading communities of Phœnicia. In the persons of the priests, the senators, and the members of those classes emphatically termed the people, who accompanied Dido into exile, we see the constituent elements of the new state which she founded; but the relation which the city of Carthage bore to the cities

and colonies subsequently founded by her people was different from that which Tyre and the other Phœnician cities occupied relative to their colonies. The colonies of Carthage did not bear the character of independent republics gathered in a mere confederacy; they were, on the contrary, held in a state of utter subjection, the capital forming the centre of power and activity, and treating all the dependent territories as—what in reality they were—conquered provinces.

During the lifetime of Dido, her royal birth, and her position as founder of the state, gave to this princess a power and an influence equal to that of the kings and rulers of Tyre and other Phœnician cities; but after her death, the supreme dominion seems never in an equal degree to have been centered in any individual, but was jealously divided among several governing bodies. The aristocratical form of government, which has prevailed in almost all the commercial republics of which we have any knowledge, was uninterruptedly maintained in Carthage up to the period of her destruction; for though ambitious individuals endeavoured from time to time to secure to themselves and their families the ruling power in the state, their attempts were always frustrated by the rich, powerful, and numerous body of aristocrats who would have been the greatest losers by their usurpations, and who were supported by the people, who had also a share in the conduct of public affairs, and were equally averse to losing their privileges. The chief executive power was in the hands of two *suffetes*, whose functions were pretty nearly the same as that of the Roman consuls; and thus in Carthage, as in Rome, the power was equally divided between the chief magistrates, the aristocracy, and the people. The *suffetes*, who were generally chosen from among the members of the wealthiest and most distinguished families, presided in the senate, which was convoked by them, sat as supreme judges in the judicial courts, and frequently commanded the armies in war. As regards the period for which they held office, no decided record is left; and by their being sometimes compared by writers of antiquity to the kings of Sparta, it has been concluded by some that the dignity was conferred for life; whereas other writers, judging from the general spirit of the Carthaginian institutions, and from the character of the people, think it probable that their period of office was limited by law. Next to the *suffetes*, the priesthood and the generals commanding the armies stood highest in consideration. The religion of the Carthaginians being a state religion, the gods were consulted on all matters of great public importance; and the priests, therefore, devoted to the service of the principal gods, ranked among the highest public functionaries. By them were offered up the sacrifices by which the state endeavoured to propitiate the favour of the gods before every great undertaking; they accompanied the armies in the character of augurs; and they presided at the foundation of new temples in the new settlements, at the erection of public monuments within the sacred precincts, and at the conclusion of important treaties with foreign powers.

As for the generals, they were at first elected by the senate; but at a later period of the history of Carthage, when the rules of the constitution were frequently violated, they were nominated by the people, and even by the *suffetes*; wealth, birth, and public influence being taken into consideration in their election as much as in that of the *suffetes*. In war they were

sometimes invested with unlimited power; but at other times they were attended in the camp by members of the senate, who were present at the councils, and without whose consent the generals could not form alliances or conclude treaties. In some cases the senate sent orders from Carthage to the generals commanding abroad, and in this body was always vested the right of recalling the generals. The senate, which seems to have been a hereditary body, was probably in a great measure composed of the descendants of those senators who followed Dido from Tyre, with additions to their number from among the wealthiest and most influential families of later date. The number is supposed to have been about 300, but the business belonging to its functions was chiefly transacted by a committee of 100 of the oldest members; and from among this Geruntia, or Council of Ancients, ambassadors were chosen in cases when it was thought that simple senators could not with sufficient weight and dignity represent the state. As already mentioned, the suffetes presided in the senate, in which the internal as well as external affairs of the republic were discussed. When senators and suffetes agreed, their resolutions became law; but when they disagreed, the matter in dispute was referred to the people, whose decision was not, however, binding upon the superior authorities, and may therefore have been appealed to more as a matter of form, or a means of intimidation, than with any view to its being carried out. That the people had an authoritative voice in many questions is, however, distinctly affirmed by several writers of antiquity; and it seems proved beyond a doubt that their sanction was required for the election of the suffetes and the generals, as well as for that of the subordinate magistrates. Towards the decline of the Carthaginian republic the power of the people gradually increased, and hastened the downfall of the state; because the love of lucre being the strongest passion of this nation, and prevailing over every honourable and patriotic sentiment, their suffrages were at the disposal of the wealthiest citizens, who were thus enabled to establish a factious oligarchy, which sacrificed the public interests to its own passions.

The judicial power in Carthage was not in the hands of the people or of the senate, but was vested in a tribunal consisting of 100 members, which seems to have been instituted at the period when the family of Mago—a Carthaginian general, who lived about the year 550 B.C., and from whom sprang almost all the able military leaders who extended the sway of Carthage over the various territories we have enumerated—arrogated to itself such undue influence as to render itself formidable in the eyes of those who were attached to the existing form of government. This tribunal was intended to act as a curb on the power of the generals, which in time of war was almost unbounded; and for this purpose the centumviri, like the ephori of Sparta, were entitled, after the conclusion of a war, to call the generals to account—a right which they frequently exercised with the utmost cruelty and injustice. It was not, we are told, an unusual thing for these judges to punish want of success as severely as the grossest misconduct, and to condemn generals, for a battle lost without any fault of theirs, not only to money fines and exile, but even to death by crucifixion. Before long, the centumviri acquired a power which in its turn threatened the liberty of the republic, when the latter became distracted by the factious struggles of a corrupt people; for the members being elected not

by the people or the senate, but by the pentarchy—another governing body, composed of five members, said to have possessed great power, and who were themselves entitled to fill up any vacancies occurring in their own number—only such persons were admitted who would support the views of the latter; and the two bodies thus formed together a phalanx whose might was irresistible. Originally, also, the *centumviri* were elected for one year only; but subsequently they kept their office during life, and, in addition to all their other functions, usurped the administration of the finances, and thus held the honours, the fortune, and the life of every citizen in their hands.

From what has been said, it will be seen that in Carthage birth and merit only commanded influence when joined to riches, the acquisition of which became, therefore, the chief object of every citizen. Wealth was indeed the essential element in the Carthaginian republic—the corner-stone of the edifice. On the state of the finances depended the very existence of the state; for without a full treasury there was no means of maintaining the allegiance of the colonies, or of the large armies of foreign hirelings which constituted its chief military force. The sources whence the state revenues were derived were, as far as they are known—1st, The annual tribute which the African territories, as also all the other subjugated colonies, were bound to pay to the treasury—the country-people in produce, and the town populations in money—and the amount of which may be judged from the fact mentioned by Livy, that Leptis alone daily defrayed one talent (about £225 sterling), and that the rural communities were often obliged to cede more than the half of their crops as tribute. During periods of urgent necessity the amount of tribute seems, indeed, to have been arbitrarily raised to meet the requirements of the moment; for during the first war with Rome, the cities of Libya were forced to pay double the usual amount—a circumstance which contributed greatly to spread a feeling of hostility against Carthage throughout these cities. 2d, The mines, and more particularly the Spanish mines, during the latest period of the existence of the republic. And 3d, The customs' duties, which were levied not only in the seaport towns, but also in the commercial cities in the interior, though more particularly in the frontier towns.

As regards the military force which enabled Carthage to conquer, and to keep in subjection, her widespread dominions, and to maintain during 600 years the empire of the sea, it consisted of land troops and vessels of war. The ships, according to the evidence of all cotemporaries, in swiftness, lightness, and fitness of construction, greatly surpassed those of the Romans, and even of the Greeks. The rowers were more expert, and the seamen more experienced, than those of the other maritime nations of antiquity, to which was chiefly owing their success in battle; for in valour and military skill the Carthaginian warriors were generally inferior to the Romans; and whenever, by aid of the grappling hook, the combat came to resemble an engagement on *terra firma*, the latter were generally victorious. At first the Carthaginians, like other nations of antiquity, seem to have used triremes only, but subsequently they had quadriremes and quinquiremes; and in the battle which the Roman consul Duilius gained over the Carthaginians in the year 260 B.C., the Carthaginian admiral appeared on board a vessel with seven benches of oars. The complement of a fully-

manned quinquireme—the kind of vessel most commonly in use among the Carthaginians—was 150 warriors and 300 rowers: the latter being chiefly African slaves. As a general rule, the fleet numbered from 130 to 200 ships of war; but in the first year with the Romans, the number was increased to 350. Most frequently the commander of the fleet was bound to obey the orders of the general commanding the army; but sometimes the order was reversed, and the admiral was invested with the supreme command over both forces; and instances even occur in the history of Carthage when the command of the fleet and the army was vested in the same individual, in conformity with the usage of that republic to honour individuals by conferring upon them at one time a variety of offices.

The armies of Carthage were composed of the most heterogeneous elements, and the modes of warfare were as various as the countries from which the troops were drawn. The Carthaginian citizens did not, as a general rule, give service in war; but the republic held in its pay, besides its Libyphœnician subjects, Numidians, Nasamoncs, and Locophagi (the two last being African tribes from the neighbourhood of the Greater Syrtis); Spaniards, Gauls, Ligurians, Campanians, natives of the Balearic Isles, and at times even Greeks. Even the garrisons of the capital and of the affiliated cities were not composed of Carthaginian citizens. In times of need, however, these formed an army corps amounting to 40,000 men, called the Sacred Cohort, which distinguished itself by the magnificence of its arms, as well as by its valour; and at all times the wealthiest and most influential citizens, who could take a high position in the army, deemed it an honour to serve in war. The system of employing foreign troops—the loss of which did not drain the state of its citizens, and could easily be supplied as long as the treasury was not exhausted—was no doubt attended by great advantages, which were so forcibly felt by the Carthaginians, that the foreign mercenaries were often exposed and sacrificed in the most cruel manner, in order to secure the escape of the few Carthaginian troops serving with them; but though it had its advantages, it had also its concomitant evils, which in the end contributed greatly to the downfall of the republic. More than once during the history of Carthage, it happened that, before the armies could be recalled from a distant field of action, or others could be collected from among the different nations of Africa and Europe, the enemy was at the doors of the capital, and the utmost consternation reigned for want of a troop of disciplined and warlike citizens ready to defend their territory when attacked. Still greater dangers arose when the finances of the state being embarrassed, arrears of pay were allowed to accumulate, and the foreign mercenaries, after murmuring and discontent, turned their arms against the republic in whose service they were engaged, and lent their aid to disaffected provinces. It will also readily be conceived that troops, animated by no higher feelings than the love of gain, could not, in valour and perseverance, compete with the Roman soldiers—each of whom, at that period, was a devoted citizen of the state for which he was fighting, and whose best feelings were engaged in the combat—though they might meet on an equal footing the hireling troops of the Greek colonies in Sicily. The great want of unity arising out of the heterogeneous nature of the troops was also a prolific source of weakness and disorder, and often baffled the skill of the most experienced generals; and as the booty to

be acquired was the great object of all, serious quarrels often arose relative to its distribution. The character and accoutrements of this motley assemblage were as distinct as the nationalities of those who composed it. The Sacred Cohort, formed by Carthaginian citizens, was composed partly of heavily-armed cavalry, and partly of foot soldiers, or hoplites, clad in finely-wrought iron armour, with copper helmets, and armed with shields made of the hides of elephants. In the field these troops were distinguished from the rest not only by the splendour of their armour, but by the steady firmness of their step, and the superiority of their discipline. The Libyan troops, from the subjugated African territories, served as heavy cavalry, and also as foot soldiers, were armed with swords and long spears, and formed, together with the Carthaginians, the flower of the army. Next to them ranked the Spaniards, who, according to the custom of their country, were clad in white linen robes with red borders, over which they frequently wore a fur cloak of a dark colour. Their heads were protected by helmets of bronze, ornamented with red plumes, and their legs by leggins of untanned hides. Their arms consisted of long two-edged swords, short daggers, and large, but very light shields. The Gauls, less civilised and less disciplined, appeared with naked limbs, but armed likewise with long sabres and large light shields. This people, as well as the Spaniards, most generally served as infantry, but sometimes formed part of the heavy cavalry. Balearic slingers, ranks of war-chariots, and troops of armed elephants, increased this motley array; as did also Ligurians and Campani, and in the latest period even bands of Grecian mercenaries.

Notwithstanding the stringent measures of the Carthaginians for the purpose, the difficulty of maintaining order in an army so composed was great; and we cannot, therefore, but admire the genius of those generals who were able for a time to infuse, as it were, one soul into a body so heterogeneous in its elements. In order to guard against the rapacity of the troops, the *matériel* of the army, comprising the luxurious outfits of the superior officers, was placed under the especial care of a subordinate chief. On the marches the Carthaginians and Libyphœnicians formed the van, and their Numidian allies brought up the rear, so as to enclose between them the hired mercenaries, and to be able to keep them under proper discipline. In the camp the strictest rules of discipline were enforced, and the invariable presence of an altar and a priest in each camp seems to indicate that the influence of religion was also brought in to maintain order.

Whether, as it would seem from the above, the religion of the Carthaginians may have influenced the conduct of its votaries in some directions by means of fear, we cannot say; but its general character was certainly not such as can be supposed to have had a moralising influence on the people. Yet religion was held in high reverence in the Carthaginian republic; it was the bond which bound Carthage, as it did all the other Phœnician colonies, to the parent state of Tyre; and the gods, and the faith which her people had borne with them thence, continued to be her gods and her faith to the last. Every year a ship, freighted with rich presents, was sent as a tribute to the country of the people's birth, and an annual sacrifice was offered to the tutelar gods of Tyre. That the religious affinity between the countries was a real bond, is also proved by the readiness shown by the different Phœnician colonies to assist each other in

times of need; and by the refusal of the Phœnicians, who were serving in foreign armies, to follow these armies into the field when they learned that it was against kindred nations their arms were to be employed. The chief god of the Carthaginians, as of the Tyrians and of the Canaanites, was Baal, the god of the sun and the god of fire—the Moloch of the Scriptures, and supposed also to be the same as the Kronos of the Greeks, and the Saturn of the Romans. Baal is believed to have typified the sun and the creative powers of nature, as Astarte, the goddess of the moon and the earth, who ranked next to him, represented the receptive and generative powers. Indeed the number of the gods of this people seems to have been regulated by the number of the different manifestations of power which they discovered in nature. Thus Æsculapius, or Esmun, represented the air, the life-supporting element; and Neptune, who was more particularly invoked by the Carthaginian mariners, was the god of the ocean. Besides these gods, the Carthaginians seem to have held in reverence many minor deities and demons, some of foreign, some of native origin.

According to the ancient religious traditions of the Phœnicians, Baal sacrificed his son to Heaven; and in this tradition probably originated the revolting custom of human sacrifices to this deity. When war, or pestilence, or famine devastated the land, the Carthaginians assembled round a colossal brazen image of their god, erected above an immense furnace, in which the sacred fire was lighted, and laying their fairest and healthiest children on the arms of the statue, looked on, apparently unmoved, while the babes were precipitated thence into the flames below—trumpets, cymbals, and other noisy instruments being sounded to drown the shrieks and groans of the ill-fated victims of a hideous superstition. But not only to allay the wrath of the gods, but to propitiate future favours, and as tokens of gratitude for others received, were these human offerings made; and not only children, but men and women likewise were sacrificed upon their altars. Though severe laws and superstitious fear forced the mothers of Carthage to behold their infants thus cruelly put to death without the slightest outward evidence of feeling, the natural affections still, it would seem, maintained their sway; for at times wealthy citizens would purchase the children of slaves to substitute for their own. Such substitution was, however, thought to awaken the anger of the gods; and on one occasion on record, when Carthage was threatened by the victorious armies of Agathocles—and this danger was considered as a sign of celestial vengeance for the fraud—200 children of the wealthiest and most influential citizens were sacrificed in one day to Baal, and 300 of the citizens, chiefly suspected of having substituted strange children for their own, voluntarily precipitated themselves into the glowing furnace. In times of war, prisoners also were sacrificed in the same manner; and this, as well as the horror which such a revolting practice could not but awaken in all those whose religious notions were less corrupt, sometimes induced the heathen nations at war with Carthage to stipulate, on the conclusion of peace, that human sacrifices should be abolished: but the practice was nevertheless continued to the last. The worship of the goddess Astarte was as revolting as that of Baal, and must have exercised a still more demoralising influence on the people. That it did so, may indeed be judged from the national character, which, according to all accounts, was made up of a gloomy and ferocious fan-

ticism, joined to the grossest sensuality. Of the worship of *Æsculapius* and *Neptune* little is known, though both seem to have been held in high reverence throughout the Carthaginian dominions. To *Æsculapius*, as representative of the air, the supporter of life and health in all animated beings, a temple was erected on the highest point of Carthage, according to the custom, prevalent among the Greeks also, of placing the sanctuary of this god in an elevated and airy position. Whether *Neptune* had a temple at Carthage is not known, but *Herodotus* mentions that this deity was worshipped by the Libyans in the remotest times, and it is therefore probable that the Carthaginians originally borrowed his worship from them, though in Carthage the god was represented under a figure resembling that of the Grecian deity, and horses and dolphins were in like manner especially sacred to him, as likewise lions and the tunny-fish, the image of which was impressed on the coins of Carthage. *Apollo* also had a magnificent temple at Carthage, perhaps chiefly on account of the number of Greek merchants in the city; but the deities borrowed from Greece and Libya always remained subordinate to those of Phœnician origin, while the worship of the latter, though somewhat modified, continued to the last to maintain its Oriental character. The genius of death, and the heroes who most distinguished themselves in the service of the state, also enjoyed divine honours among the Carthaginians. That some purer religious tenets have been mixed up with the grosser superstitions of this people, has by some writers been concluded from a passage in one of the plays of *Plautus*, who died about the year 184 B.C., and whose intimate acquaintance with the Carthaginians is proved by a scene in this play being written in their language. In the passage in question, a Carthaginian is made to express the hope that a deceased friend of his 'is gathered together with the host of those whose dwellings are in the regions of light.' This belief in a future state, and in a retributive justice after death—which is also evidenced by the prevalent custom of visiting the graves of the deceased, there, by prayer and offerings, to implore from the gods mercy for the departed souls—was probably limited to a comparatively small number of enlightened minds, while the mass of the people were sunk in the grossest superstition.

All corrupt as it was, however, the religion of the Carthaginians was followed with great sincerity, and the gods were not only called upon to sanction all public undertakings, but seem also to have been truly venerated and feared by the whole people, who fully recognised their power, and endeavoured to propitiate their favours. But the effects must be traced in the vices, not in the virtues, of the nation. We are thus told that the Carthaginians were of a morose and discontented temper, slavishly submissive to their magistrates and rulers, hard-hearted and cruel to their enemies and to strangers, obstinate in anger, and cowardly in fear. *Cicero*, in enumerating the various qualities characteristic of different nations, assigns to the Carthaginians address, industry, cunning, and that duplicity and want of faith into which the last quality is so apt to degenerate. In such universal contempt, indeed, was the Carthaginian character held by the Romans, that the term 'Punic faith' was by them considered synonymous with bad faith, and a knavish, deceitful disposition was expressed by the words 'a Carthaginian disposition.' However, we must

not forget that this picture was drawn by enemies; yet there is reason to believe that, though it may be somewhat overcharged, it was not devoid of truth. It is very likely that the excessive love of gain, which in a great measure inspired the enterprise of the Carthaginians, and thus led to their greatness, being counteracted by no higher influences, may have given birth to vices such as those described.

That material civilisation among the Carthaginians must have been considerably advanced, may be judged from their origin as well as from all that has already been said concerning their cities, their fleets, their armies, their manufactures, their mining operations, and the advanced state of agriculture among them. The fact of their being the descendants of a people who, at the period of their separation from the parent stock, were already acquainted with the art of writing, who excelled in the arts of weaving and of dyeing wools and linen, of smelting metals, and of coining money—who were the discoverers of the manufacture of glass—who were familiar with the sciences of arithmetic, geometry, and astronomy, and distinguished as ship-builders and architects—proves that the Carthaginians must have started from an advanced point of civilisation; and we cannot doubt that all these arts must have been further perfected by a people so industrious and so enterprising, and who constantly came into contact with the Greeks and the Etruscans, the most civilised nations of Europe at the period. Of the cultivation of the fine arts among them but little is known, for the architectural embellishments of their cities may have been the work of foreign, and particularly of Greek artists, as the Grecian style seems to have prevailed; but the existence of these embellishments, as well as the fact, that the sculptured works obtained as booty in the wars with the Greeks of Sicily were highly prized by them, proves at least that a taste for the beautiful must have been developed among them. To none of the arts of peace, however, do they seem to have been so devoted as to the cultivation of the soil. Agricultural pursuits seem at all times to have been the delight and the pride of the most distinguished men of Carthage; for although commerce was the chief passion of the people, and it was considered neither derogatory nor wrong for senators, magistrates, and generals to participate in its profits, the higher ranks seem always to have preferred drawing their incomes from landed properties which they farmed themselves. To this love of the Carthaginians for agriculture was owing the blooming state of their African territories, described by the Greek historian Diodorus. When Agathocles, tyrant of Syracuse, he tells us, who removed the seat of war from Sicily to Africa, traversed the Carthaginian territories with his armies, he passed through a constant succession of estates, the magnificent mansions on which bore witness to the riches of the proprietors; while the fields, irrigated by artificial means, the olive plantations, the vineyards, and the orchards, all cultivated with the greatest care, as well as the excellent condition of the cattle grazing in the pasture-lands, testified to their love and knowledge of rural occupations. There are still extant fragments of a work on farming, written by Mago, a Carthaginian suffete and general, to whom we have before alluded, which gives further evidence of the importance which the Carthaginians attached to this branch of science, and the diligence with which they studied it. In this work, which was greatly esteemed in antiquity, Mago treats of the fodder and the

breeding of cattle, of the cultivation of the vine, the olive, and the pomegranate, as also of the walnut, the almond, and the poplar-tree, and further, gives directions as to the proper treatment of cereals and pulse.

Though the fragment just mentioned is the only literary production of the Carthaginians that has been transmitted to us, there is reason to believe that, with regard to science and literature also, this people maintained an honourable position among the nations of antiquity. Their taste for literature was probably chiefly derived from their intercourse with the Greeks; but though the names of a few Carthaginian philosophers have survived in the works of Roman writers, rural economy, geography, and history seem, in preference to philosophical speculations, to have been the subjects treated of by Carthaginian authors.

The language of the Carthaginians was the same as that of the Phœnicians, such as it had been developed in the land of Canaan, and bore a close affinity to the Hebrew, the Chaldean, and the Syriac; but of course it underwent some slight modifications from the influence of the surrounding nations. As late as the fifth century after Christ, the country-people round Hippo, one of the Phœnician colonies in Africa, still called themselves Canaanites. All that is at present known of the language and written character of Carthage is derived from the play of Plautus above alluded to, and the interpretation of such names as occur in Carthaginian history; it having been the custom of the people, as it was that of the Hebrews, to give their children names conveying a certain meaning. Thus Dido is said to have signified 'amiable' or 'well-beloved;' Sophonisba, 'one who keeps her husband's secrets faithfully;' Hanno, 'gracious' or 'beautiful;' Hannibal, 'Baal (that is, the Lord) has been gracious to me;' Asdrubal, 'the Lord will be our succour,' &c.

If, after all that has been said above of Carthage and the Carthaginians, it be still felt that no distinct notion has been obtained of the growth and gradual development of the state, or of the modes of life of the people, their domestic manners, and those more amiable and estimable qualities of which they cannot have been wholly devoid, or the state could not have subsisted so long, the cause must be sought in the total absence of all native sources whence such knowledge could be derived, and in the jealousy with which the Carthaginians themselves avoided the scrutinising eyes of the other nations of antiquity, through the means of whose languages and literatures it might have been transmitted to us. Not only was the language of the Carthaginians unknown to the Greeks and Romans in general, and their religion, their manners, and their customs, utterly different from those of the European nations of antiquity, but the secrecy and selfishness which were the prevailing characteristics of their policy, and the fanatical prejudice with which they were opposed to everything foreign, prevented cotemporary Greek and Roman writers from obtaining correct and satisfactory information respecting their internal affairs, and engendered in these nations so great a hatred of them, that they came to be looked upon by their cotemporaries as a dishonour to mankind. Thus all their vices were carefully treasured up, while their virtues were forgotten or ignored. Carthage had indeed a literature and public monuments, which, like those of other ancient and defunct nations, might have survived to tell her history; but the foes who planned the downfall of the republic, when

this was consummated, carefully eradicated all traces of its former greatness; and a few inscriptions and coins, together with a Greek translation of the narrative of a colonising and exploring expedition to the west coast of Africa, undertaken by a Carthaginian of the name of Hanno—and similar translations of the treaties with Rome and Macedon; before alluded to—as also the fragments of Mago's work on agriculture—are all the vestiges extant of the glory, greatness, and civilisation of Tyrian Carthage. Of its history during the period of the peaceful development of the republic, or rather during the period when it came into collision with barbarous nations only, we do not know more than can be gleaned from the incidental mention of it in the works of foreign writers; and it is not, therefore, until we come to the period of the wars of the Carthaginians with the Greek colonies in Sicily, and with the Romans, that we can be said to possess anything like a connected history of the proceedings of the republic, or of the achievements of its citizens. That this history is not always an impartial one may be easily supposed; and besides, of all the Greek and Roman authors who treat of this subject, not one lived during the flourishing period of the republic. However, the Greek historian Polybius—who visited Carthage during its last struggle for independence, and had free access to such documents as were contained in the Roman archives—is considered above every imputation of partiality, and his work is therefore looked upon as the best and most fertile source of Carthaginian history.

The wars in Sicily commenced about the year 480 B.C. Up to that period the development of the Carthaginian dominion had received no check; for though recourse to arms was had to subject the Libyan territories, and to support colonies planted on foreign shores, these wars invariably turned to the advantage of Carthage, and the republic had attained a degree of power and importance which placed it on a level with the foremost among the states of antiquity. The struggle in Sicily was of a different nature: it was a struggle for sovereignty over one of the richest and most fertile islands of Europe, with a people the equal of the Carthaginians in civilisation, as well as in all the arts and requirements of war; and therefore it necessitated the straining of every nerve, and frequently reduced the republic to great straits. The first hostile collision between the Carthaginians and the Greeks in Sicily is by some writers attributed to the former people having entered into an alliance with Xerxes, king of Persia, who was then making war against Greece, and having undertaken, in consequence, to attack the kindred colonies in Sicily; while others say that the Greeks in that island being at variance with each other, Teryllus, king, or, as these Greek rulers were called, tyrant of Himera, who was expelled from that city, applied to the Carthaginians for aid. However this may be, a considerable Carthaginian fleet, and an army of 300,000 mercenary troops, under the command of Hamilcar, a distinguished general, left the shores of Africa at the very time that Xerxes invaded Greece, and landed on the coast of Sicily, attacked the city of Himera, and won so decided a victory, that Thero, Prince of Agrigentum, who had undertaken to defend the city, was obliged to solicit assistance from Syracuse, the most powerful of the Greek colonies in the island. Gelo, tyrant of Syracuse, who had assembled an army to assist the Greeks of Hellas against the king of

Persia, at once responded to the call; and in two successive engagements entirely routed the Carthaginian army, and set fire to the fleet. Hamilcar and 150,000 men remained on the field of battle; a great number were made prisoners; others perished while seeking safety on board the few vessels that had escaped the conflagration; and a very small number only survived to bring to Carthage the melancholy intelligence of the utter annihilation of her fleet and army. The greatest consternation reigned in the capital; ambassadors were immediately despatched to Gelo to sue for peace; and in the meanwhile the citizens passed the nights under arms, in expectation of a Greek invasion. But this time such humiliation was spared them. Gelo received the ambassadors with the greatest humanity, and declared himself willing to conclude peace, on condition of the Carthaginians paying 2000 talents towards the expenses of the war, and erecting two temples, in which the treaties of peace should be deposited.

However flourishing the state of Carthage, a blow such as that inflicted by the battle of Himera could not but be sensibly felt; and for seventy years after that event, the republic seems to have abstained from all interference with the Greeks of Sicily, and to have limited its military operations to expeditions against the African tribes. During this period also took place those dissensions with Cyrene which were settled by the sacrifice of the Philæni. In the year 410 B.C., the Carthaginians were again called upon by one of the Greek cities in Sicily to assist it in its conflict with a neighbouring kindred colony; and the opportunity thus offered for extending their power was too tempting to be resisted. The wars which ensued in consequence of this interference, and in which Carthage and Syracuse became the principal actors, extended (with intervals of a few years each) over a period of nearly a century and a-half; and were carried on with varying success, and with all that ferocity and passion which a strong national hatred engenders. No doubt the advantages were great which Carthage derived from those dominions which she won in Sicily, and for a long time was able to maintain; but immense losses, severe suffering, and great humiliations, were nevertheless entailed upon the republic by these wars. Its territory was twice invaded, and hundreds of thousands of men slain on the field of battle; large fleets were destroyed and plundered; famine and pestilence in the capital and in the colonies were among the worst results. But the never-failing courage with which they were borne—the renewed energy with which, after every check, the struggle was recommenced—the unalterable self-confidence and unswerving perseverance with which the object in view was pursued—attest the strength and stability of the Carthaginian constitution, and the elasticity and fertility of the resources of the republic. The Greek states, on the contrary, evinced during this protracted struggle the same unsteadiness of purpose, the same want of perseverance, the same internal dissensions, which always characterised that people, and never put forth any great power of action, except when leaders of eminent talent—such as Dionysius, Timoleon, and Agathocles—succeeded for a time in inspiring these unstable elements with their own strength and unity of purpose. Thus at the moment when Rome was preparing to enter the arena, in which, until then, Carthage and Syracuse had been the chief combatants, the latter was in a state of exhaustion, caused as much by internal factions as by external foes; while

the former was prepared to meet the coming storm with the calmness and firmness of self-conscious power. Yet the Sicilian wars revealed and developed in Carthage the germs of destruction which ultimately effected its ruin. With a view to a strictly commercial republic, the Carthaginians had laid the foundations of their institutions; and they had regulated in the same way their relations with their colonies, which, being held in a state of utter dependence of the parent city, and without the slightest vestige of local power or control over their own resources, or any real interest in the affairs of the capital, could, in the hour of need, afford it no important support. In times of war, however, these provinces—upon whom the conquests and the military glory which extended the dominion, and gratified the ambition, of the capital, entailed only misery—were drained of men and provisions, to supply armies which were contending for objects in which they had no interest. The consequence was a growing discontent, particularly in the African colonies; and which became evident during the invasion of the Carthaginian territory by Agathocles, when a great number of the Libyan cities joined the invader, and assisted by the Numidians, who also seized this opportunity to break off their forced alliance with Carthage, added greatly to the dangers of the critical position in which the republic was placed.

Within the walls of the capital, moreover, other passions, fraught with still greater dangers to the republic, were developing themselves. About the year 340 B.C., after the Carthaginian army had suffered a severe defeat in Sicily, and the capital was in a state of the utmost confusion from fear of the invasion of the victorious Timoleon, Hanno, a suffete, whose private revenues are said to have exceeded in amount those of the state, and who had long been nourishing ambitious projects, availed himself of the prevailing confusion, to put these into execution. He laid a plan for murdering all the members of the senate, and of raising himself to supreme and unlimited power in the state. His daughter's wedding-day was chosen for the perpetration of the deed, which was to be accomplished by mixing poison in the wine of the assembled guests in his palace; it being his intention to invite the senate to a splendid collation in his princely mansion, while he gained the good-will of the people by an equally profuse entertainment in the places of public assembly. This plot was betrayed; but Hanno, nothing daunted, then endeavoured to gain his ends by causing a revolt of the slaves in the city. This project being again revealed before he had time for action, he shut himself up with 20,000 slaves in one of the fortified quarters of the city, and thence endeavoured to draw the Lilyans and the Numidians into an alliance with him. But the senate and the people, acting in concert, soon reduced the rebel force; and Hanno, having first been publicly whipped, was put to death under the most fearful tortures. During the invasion of Agathocles, the state was threatened by similar dangers from within, while its position with reference to its foreign foes was still more precarious. Bomilcar, a Carthaginian of high estate, who had long been discontented with the arbitrary manner in which the centumviri treated the generals, to whose number he belonged, determined to revolutionise the state, to found a monarchy, and to place himself on the throne. Having rid himself of the surveillance of a great number of the citizens whose opposition he feared most, by send-

ing them on a military expedition against the faithless Numidians, he allowed himself to be proclaimed king by his own party; and placing himself at the head of 500 citizens devoted to his cause, and of 4000 hired troops, he traversed the streets of the city, determined to put to death all those who opposed him. This insignificant force was, however, soon overwhelmed by the majority who had remained faithful to the constitution; and Bomilcar, like Hamo, expiated his crimes on the cross. •

But Carthage had next to encounter the power of the Romans, a people not divided, like the Greeks, into innumerable small states, which as often turned their weapons against each other as they assisted each other in resistance to a foreign foe, but living under a strongly-centralised government, possessing full control over every element of strength in the state, and animated by one strong feeling—the wish to extend the power and glory of that empire in whose bosom the desire for world-dominion had already begun to germinate. Up to the year 264 B.C., the relations between Rome and Carthage had never been of a decidedly hostile character, each state having limited itself to checking the ambition of the other by means of commercial treaties, and both having submitted to the conditions mutually imposed. But when, in the year 272 B.C., after the subjection of Tarentum, Rome found herself in possession of the whole of southern Italy, and her dominions separated only by a narrow strait from an island whose unbounded fertility had rendered it an acquisition of immense importance to the Carthaginians, and whose easy subjection by the very Greeks who had in Italy been obliged to bend to the dominion of the Romans was still in vivid recollection, that people began to think that in their hands this richly-gifted land might become the starting-point of greater undertakings than the world had ever yet witnessed. An opportunity which soon offered for interference in the affairs of the island afforded Rome, as similar occasions had before afforded Carthage, a *point d'appui* for her ambitious plans, at the very moment when the Carthaginians were preparing to consolidate their hard-won power in Sicily.

A band of Campanian mercenaries, calling themselves Mamertini, having been employed by Agathobles, tyrant of Syracuse, in the wars against Carthage, and having been dismissed when their services proved no longer desirable, instead of leaving the island, as they were requested to do, seized upon the city of Messene, and maintained themselves there for some time in defiance of the Carthaginians as well as of the Syracusans, who were equally displeased at the presence of these intruders forming a third power in the island for the sovereignty of which they had been contending. At length the Mamertines, being hardly pushed by Hiero of Syracuse, found it necessary to seek foreign aid; and one party among them applied to Carthage, while another addressed itself to Rome. The Carthaginian general had already entered the citadel of Messene, in compliance with the wishes of one party, when accounts were received that the Romans, equally prompt in responding to the appeal made to them, were approaching under the command of Appius Claudius. On receipt of this news, those among the Mamertines who were opposed to the Carthaginian alliance drove Hanno and his troops out of the castle, and prepared to receive the Romans, who succeeded, during the night, in crossing the narrow straits which separate Italy from Sicily, and in throwing themselves into Messene in spite of the

Carthaginian fleet and the Syracusan army, which were in conjunction investing the place. But having achieved this, Appius Claudius became aware of the difficulty of his position, and endeavoured to arrange matters amicably: the proposals of his ambassadors were, however, rejected, and nothing remained for him but to venture a battle. In consequence, he first attacked the Syracusans, and routed them, and the next day he was equally successful in dispersing the Carthaginian army. Encouraged by so prosperous a commencement, the Romans next made inroads on the territories of the Syracusans and the Carthaginians, who, from having been enemies, had become allies, and even threatened to lay siege to Syracuse. On learning the success of Appius, the Roman senate, determined to follow up the advantages already gained in Sicily, sent fresh troops to his assistance; and Hiero of Syracuse, thinking that he had less to fear from the Romans than from the Carthaginians, who already possessed such great power in the island, abandoned the newly-formed alliance with the latter, and made peace with the former. Thus the war, which originated in a private quarrel of the Mamertines, gradually assumed the character of a deadly conflict between Carthage and Rome.

As long as the Romans had no fleet to oppose to the Carthaginians, their successes on land led to no important results; for though they gained possession of many of the cities in the interior of the island, the seaport-towns, being protected by the Carthaginian fleets, which also frequently devastated the Italian coasts, eluded their grasp. But the Romans were determined to carry their point; and seeing, probably as their love of conquest increased, that without a naval force their power of action would always be limited, they fitted out a fleet in sixty days (260 B.C.), and in two consecutive battles defeated the Carthaginians at sea also. These victories, won by a people who had very little experience in naval tactics over the first maritime power in the world, were, however, merely accidental, and were not followed up with success; for though the creation of a fleet had at once placed the Romans on a level with the Carthaginians; and though the struggle for maritime supremacy was carried on by the former with great obstinacy, the latter for a long while maintained their superiority on the element which had during centuries been subjected to their sway. In the year 242 B.C., however, the Romans again won a decisive victory at sea; and the finances of both republics being by this time exhausted, both parties inclined to peace. The Carthaginian general, Hamilcar, surnamed Barca, had at this juncture obtained several advantages over the Romans in Sicily, but Rome had not been so great a sufferer as Carthage during the struggle; and it was in consequence of a victory won by them that peace was concluded, and therefore the Roman generals imposed the conditions. The Carthaginians were, in consequence, obliged to pledge themselves to evacuate Sicily, and to refrain in future from all hostilities against Hiero of Syracuse and his allies; to deliver up all Roman prisoners without ransom; and to pay the sum of 2200 Euboic talents within a term of twenty years. But the right of revising the treaty having, by the generals who concluded it, been reserved for the Roman people, the latter, on becoming acquainted with the conditions, thought them not sufficiently humiliating, and further enacted that the Carthaginians should immediately pay down the sum of 1000 talents, besides

defraying the before-mentioned sum of 2200 talents in ten, instead of twenty years; that they should evacuate all the small islands situated between Sicily and Italy; that they should desist from enlisting troops in Italy or any of the countries allied to Rome; and further, that no Carthaginian ship of war should ever approach the coasts of these countries. Thus ended a war which had been carried, on without intermission, during four-and-twenty years, and had cost the Romans 700, and the Carthaginians more than 500 large ships of war, besides rivers of blood and immense sums of money. In the case of Rome, the result of these sacrifices was increased power at home and abroad, and a degree of proud self-reliance which in future added considerably to the strength of her arms. On Carthage the struggle entailed the humiliations just mentioned; and, in addition to these, a most disastrous civil war, which lasted upwards of four years, and brought the state to the brink of ruin.

As soon as peace was concluded with Rome, the mercenary troops who had formed the Carthaginian army were shipped over in detachments from Sicily to the capital, there to receive the arrears of pay which had been allowed to accumulate. The authorities at Carthage, less wise than the generals—who had foreseen the dangers of admitting the whole force of discontented and desperate adventurers at once into the territories of the republic—neglected, either for want of means, or in the hope of being able to drive a better bargain when all were assembled, to pay off and disband each detachment as it arrived. Soon the capital was filled with these rapacious soldiers, who, finding themselves disappointed in their expectations of receiving at once not only their full pay, but additional rewards, by the promise of which Hamilcar, the commanding general, had sought to insure their fidelity during a critical period of the war, became very mutinous in their conduct, and daily disturbed the peace of the citizens. Wishing, above all things, to secure the tranquillity of the capital, and overlooking, in their anxiety to do this, the greater dangers to which they were exposing themselves, the Carthaginians proposed to the leaders of the mercenaries to withdraw with their troops to the small neighbouring town of Sicca, offering at the same time to pay to each man one gold piece as an instalment on the pay due to them. To this proposal the leaders acceded; and the whole army of mercenaries—Gauls, Spaniards, Greeks, Ligurians, natives of the Balcares, and Libyans—was in consequence translated to Sicca. Here the troops gave themselves up to the most extravagant expectations as to the rewards which the republic would bestow upon them; and their indignation was therefore boundless when Hanno, a Carthaginian general, who had just returned from a successful expedition against a rebellious Libyan city, appeared before them, and represented to them the folly of nourishing such expectations at a period when the republic had just been deprived of a great number of its foreign dependencies. He further tried to impress upon them the necessity of submitting to a reduction in their pay, in order to secure some portion of it; and the irritation which such a proposal was calculated to produce among a mass of men whose sole object in war was pay and booty, was further increased by the dishonesty of the interpreters through whom it was made known to the different nations, and by the fact, that the general sent to treat with them was not one under whom they had served, but a perfect stranger, from whom they could expect no sympathy.

The flame that had long been smouldering burst forth. The whole army of 20,000 men rose in open rebellion against Carthage. The senate, perceiving its mistake when it was too late to retrieve it, now endeavoured to conciliate, and sent supplies of provisions and negotiators to the camp formed by the rebels near Tunis. But their abject concessions proved fruitless; the mutineers had already sent ambassadors to all the cities of Libya to invite the inhabitants to join them; and the Libyans, who had suffered dreadfully during the war, joyfully responded to the call.

Thus stood the proud republic, by its own misdeeds and errors reduced to a state of utter desolation; shorn of its colonies abroad, and of its subjugated territories at home; without money, without allies, and without troops, the very fields and gardens whence its citizens were to draw the means of daily subsistence being in the hands of a hostile power. Yet the courage and energy of the people were still unbroken. With an army of 10,000 men, formed of the flower of the Carthaginian youth, and a few hireling troops who had remained faithful, Hanno was sent against the rebels, who had by this time been joined by 70,000 Libyans. Hanno was defeated, and proved his incapacity to command in a war against enemies such as he had now to deal with. But when he was superseded by Hamilcar—the former commander of the rebel troops, and whose very name inspired them with terror—inatters took a more favourable turn for Carthage. The war, however, was protracted during three years and four months, and its final conclusion in favour of Carthage was as much owing to the unexpected aid which the republic received from its former enemies, Syracuse and Rome, as to the skill and bravery of Hamilcar. The aid of the Syracusans was proffered with a view to securing an ally in case Roman ambition, not satisfied with the spoils of Carthage in Sicily, should covet their dominions also; and it proved most opportune for Carthage, as Syracuse furnished the capital with provisions at a moment when all other sources were closed. The Romans, in offering their assistance, seem to have been actuated by a sense of justice only, which was, however, soon superseded by feelings of a less generous nature when a new occasion offered for the extension of their own dominion; for when Carthage had come victorious out of the struggle in Africa, and had reconquered the whole of her dominions there, she found the Romans in possession of Sardinia, into which island they had thrown an army, in consequence of an invitation from the inhabitants, who solicited their aid in quelling a revolt which had broken out among the mercenaries stationed there. In defiance of every feeling of honesty and justice, the Romans refused to give up the island, and not only forced the Carthaginians to make a formal cession of it to them, but even exacted a tribute of 1200 talents from the republic, which, humbled and exhausted as it then was, could offer no resistance.

But Carthage, however humbled, still possessed citizens inspired with that energy of action, that bold enterprising spirit, that statesman-like foresight, which had led to the rapid growth of the republic, and its long-continued prosperity; and in the mind of one of these citizens a plan was maturing which, when put into execution, again placed the state in possession of almost boundless wealth, and enabled it again for a time not only to meet the Romans on a footing of equality, but to begin a war against this formidable enemy, to maintain Carthaginian armies for several years

in their territories, and even to threaten their proud capital. Hamilcar, who, at the conclusion of peace with the Romans in 241 B. C., was at the head of an unvanquished army in Sicily, burned with indignation when the unsuccessful issue of a naval engagement forced him to leave the field on which he had gained so many advantages for the Carthaginians; and though the rebellion of the mercenaries, and a subsequent war against the Numidians, for a time retarded the prosecution of his plan, to take revenge upon Rome had from that moment become the object of his life, and the extension of the Carthaginian dominion in Spain was looked upon by him as the sole means for gaining this end. In the capital, Hamilcar's plan was warmly adopted by the people, whose favourite he was, in consequence of his well-known hatred to the Romans; but it was opposed by the aristocrats, headed by Hanno, who feared his influence with the people. Having in a still greater degree gained the affections of the latter, by giving his daughter in marriage to Hasdrubal, one of their most famous leaders, Hamilcar at length determined to brave all opposition; and immediately after the conclusion of the Numidian war, and without consulting the will of the senate, he crossed the Straits of Gades with the army, which was wholly devoted to him, and began in Spain to lay the foundations of a new empire. Joining to invincible courage and consummate prudence a very engaging address and winning eloquence, he succeeded in a short time—partly by force of arms, and partly by wise policy—in subduing a great part of Spain; and was able to found new cities, to develop the commerce of the country, to enrich his soldiers, and to send large sums of money to Carthage, part of which was employed in procuring for himself new partisans, and in confirming the fidelity of the old ones. In the meanwhile the Romans were engaged in subduing revolts which had broken out in Sardinia and Corsica, in fermenting which Carthaginian intrigues had perhaps some share, and in making war against the Ligurians and the Illyrians; and at the end of nine years, Hamilcar, feeling himself sufficiently strong, was on the point of attacking them, when he was surprised by death in the year 228 B. C. The Carthaginians having by this time learned to appreciate the wisdom of Hamilcar's plan, after his death nominated his son-in-law Hasdrubal as his successor, and sent fresh troops to Spain to carry out what he had commenced. Hasdrubal, seconded by his young brother-in-law Hannibal, whose fame was soon to eclipse that of every other Carthaginian, proved himself worthy of his great predecessor: he extended the Carthaginian dominion in Spain to the river Iberus (Ebro), and founded in the neighbourhood of the rich silver mines, which were now Carthaginian property, a city that in commercial enterprise, opulence, and magnificence, soon rivalled the first cities in the world, and was honoured with the name of New Carthage (now *Cathagena*).

After the death of Hasdrubal, who was assassinated by a Gaulish slave, the supreme command devolved upon Hannibal; and he, when a child, having sworn to his dying father eternal hatred to the Romans, now prepared to effect, without delay, the humiliation of that people. Having, by further conquests in Spain, made himself master of almost the whole country, and having applied himself particularly to securing the goodwill of the citizens of the conquered and of the allied cities, as well as of his troops, by allowing them a great share in the plunder taken from the

enemy, and by paying up all arrears, he began his operations by laying siege to Saguntum, in defiance of a treaty with the Romans. Saguntum appealed to Rome, and the Romans having in vain remonstrated with Hannibal, sent ambassadors to Carthage with complaints. The Barcinian faction had, however, at that moment the ascendancy in the capital, and notwithstanding the efforts of Hanno, the leader of the opposite faction, they met with no better reception there. Hannibal continued to carry on the siege, and not until the unhappy city had fallen before the assaults of the Carthaginians, did the Romans take any active steps in defence of their allies. When they had somewhat recovered from the effects of the shame and grief which they experienced at the destruction of a city that had placed itself under their protection, the eyes of the people were fully opened to the dangerous projects of Hannibal, and the necessity of war with Carthage was unanimously declared. Again, when the Roman ambassadors appeared at Carthage, to give the republic the choice between war and the disavowal of the acts of its general, Hanno and his party made a desperate effort to thwart the designs of Hannibal; but the latter had cunningly employed the greater part of the immense booty made at Saguntum in conciliating enemies at home; and the majority in the capital being, in consequence, on his side, war with Rome was accepted. Polybius, in discussing the causes which led to the second Punic war, justly remarks that the attack upon Saguntum was, under the existing circumstances, utterly unjustifiable; but that had the Carthaginians, without having recourse to tortuous and frivolous pretexts, plainly demanded satisfaction of Rome for having deprived them of Sardinia, and without any right imposed a tribute upon them, they might, on the Romans refusing to redress these two grievances, with full right have declared war against that people. But the humiliation of Rome and personal glory were the great objects of Hannibal; and delighted at the prospect of commencing hostilities against his hereditary foes, whatever the pretext, he marched with an army of 90,000 foot and 12,000 horse towards Italy, resolved to carry the war to the very gates of Rome. During a campaign which is still looked upon as one of the most brilliant military achievements on record, but into the details of which our space will not allow us to enter, he crossed the Rhone, the Alps, and the Apennines, defeated the Roman armies sent to impede his progress, gained numerous allies by means of his victories, and at one time made Rome tremble for her existence. But at the very moment when Hannibal was at the height of power, when he held almost within his grasp the proud capital, to humiliate which had for years been the cherished hope of his family, his progress was arrested by the machinations of the adverse party in Carthage, who prevented his obtaining the necessary supply of troops and provisions for which he had applied. From this period affairs in Italy took a different turn, partly, it is maintained by some authors, because of Hannibal's troops having been demoralised and rendered effeminate by the soft climate and luxurious manners of Capua, the Italian city in which they took up their winter quarters, and which was famed in antiquity for the beauty of its climate and the wealth and lasciviousness of its inhabitants. Hannibal's brother, Hasdrubal, who was, on his invitation, hastening to his assistance with large reinforcements from Spain, was intercepted, and totally defeated; and though Hannibal continued to reduce

cities and make conquests in Italy, which he could not, however, maintain, and though, notwithstanding his ill success, his superior talents as a general continued in many cases to be manifest, he was now no longer invincible; and even when his army encamped before the very gates of Rome, the capital, knowing that its forces were gaining great advantages over the Carthaginians in other quarters, no longer trembled at the presence of the man who had sworn its destruction, and he was forced to retreat with little honour. Already, in the year 218 B. C., the Romans had sent an army and a fleet to Spain, which were at first successful, but subsequently suffered much in encounters with the Carthaginian forces which had remained in that country to defend their territories. But the Romans soon retrieved their losses, and wrested one city after another from the Carthaginians; and Scipio the Younger, who succeeded his father and his uncle in the command of the Roman forces in Spain, not only made himself master of the whole of the Carthaginian empire in that country, with the exception of the city of Gades, but even prepared, in the year 206, to carry the war from Spain to Africa, calculating that, by presenting himself at the gates of Carthage, he would remove Hannibal from the gates of Rome. The plan was successfully executed in the year 204; and as Scipio's conquests in Africa were as rapid as they had been in Spain, the Carthaginians, trembling for the safety of the capital, gave up all ambitious projects abroad, and recalled Hannibal from Italy. With great reluctance the general obeyed the orders, and he quitted, with tears in his eyes, the country of his dearest hopes, where, during sixteen years, he had maintained his reputation as the greatest captain of the age. On his arrival in Africa he collected a numerous army, and met his exulting enemy in the plains of Zama. The battle was bloody and obstinate, but the star of Rome was in the ascendant; the Carthaginians were completely defeated, and obliged to sue for peace, which their haughty conquerors would grant only on the severest conditions. They were as follows:—1. That the Carthaginians should deliver up all deserters, slaves, and prisoners, as also all their ships, with the exception of ten triremes, and all their elephants, and promise in future not to train any of these animals for war; 2. That they should not make war abroad, nor even in Africa, without the leave of the Romans; 3. That they should restore everything of which they had dispossessed Masinissa, king of the Nuni-dian tribe of the Massyli, whose territories bordered on those of Carthage, and who had at first been allied to this republic, but had subsequently joined the Romans, and thenceforward proved himself to them a most devoted friend, and to the Carthaginians a never-tiring enemy; 4. That they should pay 10,000 Eubonic talents (£1,750,000) in fifty annual payments, and give 100 hostages, who should be chosen by Scipio himself.

It will readily be conceived that Carthage, which, even before this unhappy war was commenced, had hardly had time to recover from the wounds inflicted by the first war against the Romans, and the subsequent rebellion of the mercenaries, was but ill prepared to bear the suffering and exhaustion following a protracted struggle of seventeen years, during which she had a second time been deprived of all those colonies and dependencies which were the chief props of the state. Yet the republic might, even under these circumstances, have retrieved its position, had not the factious spirit of its citizens, which had been lulled, but not eradicated, by the war,

and which was gnawing like a canker at the life-root of the state, precipitated that destruction which no outward enemy alone could have achieved. The power of the House of Barcas, though fallen with the reverses of Hannibal from the great height to which his successes had raised it, was still considerable; and this extraordinary man having been nominated suffete after the conclusion of the war, proved himself as great a statesman as a general. But the people, whose power he and his family had raised, while by their bribes they helped to corrupt them, were now so utterly demoralised, so rebellious, and so unprincipled, that their support was always given to the highest bidder; and no sooner, therefore, was one factious broil appeased, than another arose. Though Hannibal by his wise measures deprived the centumviri of the power which they had usurped and grossly abused—though he introduced reforms in the finances, which had by them been most shamefully and dishonestly administered—though he succeeded not only in covering all the ordinary expenses of the republic, but also in providing means for defraying the tribute to the Romans—and though, at the end of ten years, he was able to pay down at once the whole remaining sum, which, according to the conditions of the treaty, might have been paid in forty instalments—yet all these services were not appreciated by his countrymen, and he at last succumbed to the unworthy intrigues of his antagonists. The aristocrats, who had so long enriched themselves at the expense of the state, and to whose other reasons for hating Hannibal was now added that of his having put a stop to their dishonest gains, seeing that they could not, by their own power alone, precipitate him from his high position, endeavoured to gain their object by foreign aid. For this purpose they denounced him to the Romans as being in league with Antiochus, king of Syria, who was then preparing to make war against Rome; and Hannibal, who had indeed been conspiring for his country, and against Rome, fled from Carthage, and died a few years afterwards in exile (190 B.C.).

From the period of Hannibal's flight, Carthage every day more humbly bent her neck under the yoke of Rome; but notwithstanding her abject efforts to conciliate her mighty foe, the Romans would rest satisfied with nothing less than the utter annihilation of a republic which, even in its fallen state, was formidable in their eyes. At this period also Carthage was assailed by another foe nearer home, whose hostility and encroachments contributed, as much as the intrigues and arms of the Romans, to her final destruction. In the treaty of peace concluded with Rome after the second war, the articles treating of the indemnification to be made to Masinissa were couched in language so obscure, that dissensions soon arose between the two parties concerning their relative frontiers; and Masinissa repeatedly made very serious encroachments on the Carthaginian territories. Under these circumstances, the agreement not to commence war without the sanction of the Romans became every day more burdensome to the Carthaginians; particularly as Masinissa, who had converted his nomadic tribes into a settled agricultural people, had laid the foundations of a powerful empire, and was, year after year, consolidating his power in the same degree as the strength of Carthage was declining; and when the latter appealed to Rome for permission to chastise, by force of arms, the depredator who was despoiling the republic of its fairest

cities and its most fertile provinces, the Romans not only upheld Masinissa, but even forced the Carthaginians to concede to him by treaty more than he had been able to wrest from them by violence. In addition to the annoyances and humiliations arising from these causes, the republic was further weakened by the dissensions of the three factions into which the citizens were divided: one being in favour of Rome, and another having adopted the cause of Masinissa, while the popular party alone was inspired with the love of liberty and independence, but spoiled everything by its want of moderation and wisdom. The impetuosity of the last-mentioned party, and the baseness of the second, precipitated the ruin which had so long been impending. The encroachments of Masinissa, and the tardiness of Rome in attending to the just complaints of the Carthaginians, became quite unbearable; the Carthaginian people determined at length to fly to arms to see themselves righted, and availed themselves of the hostility existing between Masinissa and the Massisyli, another Numidian tribe, to plan an attack upon him in conjunction with the forces of the latter. When intelligence of this plan was brought to Rome, Cato, who headed the party in the Roman senate which was most intent upon the destruction of Carthage, urged the necessity of the immediate assumption of extreme measures; but Scipio Nasica (the adopted grandson of the Scipio who had reduced Carthage in the year 201, and had, in consequence, been honoured with the surname of Africanus), who had for years resisted every attempt at open hostilities against that republic, though he had not put a stop to those intrigues which were undermining its strength, still prevailed; and Roman ambassadors were first despatched to Carthage to remonstrate with the senate relative to this breach of the existing treaties (151 B.C.) The ambassadors were received with great honour, and had even succeeded in persuading the senate to give up all thoughts of war, on condition that Masinissa should restore the conquered territories, when one of the popular leaders, addressing the people in passionate language, urging them to put an end to the humiliating dependence in which they were held by Rome, was so successful in stirring up their passions, that the lives of the Roman ambassadors were with difficulty saved from their fury. This outrage upon their ambassadors enraged even that party in the Roman senate which had until then supported the views of Scipio; and when, shortly afterwards, the people of Carthage drove out of the city those among the citizens who were devoted to Masinissa, swearing that they should never again be admitted, and the traitors, in consequence, stirred up Masinissa to commence a war against their native city, the destruction of Carthage was at last unanimously determined upon. The war with the Numidians, which at first turned somewhat to the advantage of the Carthaginians, terminated in their total defeat; and the people, terrified at the consequences, sent ambassadors to Rome to implore forgiveness, and sentenced to death the generals who had commanded in the war, in order to make it appear that they had commenced hostilities on their own responsibility (150 B.C.) But their servility and cruelty proved fruitless; war with Carthage had been determined upon in Rome; and the two consuls of the year 149 set out for Africa with a large fleet and a numerous army, and with secret instructions that whatever might be the vicissitudes of the war, they were to persist in their endeavours until Carthage was destroyed. In the mean-

while Carthaginian ambassadors had again been despatched to Rome, with orders to consent to any conditions which might be imposed, in order to maintain peace between the two republics. Having expressed themselves accordingly, they were informed that Carthage would be allowed to retain her independence and her territories, provided the republic would pledge itself, within thirty days, to place 300 youths of the most distinguished families in the hands of the Romans as hostages, and would promise in everything to obey the commands of the consuls. Though the Carthaginians placed but little confidence in the fair promises of the Romans, they endeavoured, by the prompt fulfilment of their engagements, to conciliate the goodwill of their proud oppressors; and the 300 youths were at once delivered up to the Roman consul commanding in Sicily. The fate of Carthage, however, remained undecided until the arrival of the consuls in Utica, which republic had voluntarily subjected itself to Rome a short time before the conclusion of the last war between Masinissa and the Carthaginians. As soon, therefore, as it was known that the consuls had arrived, deputies were sent from Carthage to the Roman camp to sue for mercy, and to declare the readiness of the republic to submit to the wishes of the Romans. To these humble intreaties and declarations the consuls, who were surrounded by all the pomp and dignity of their office, replied, that they were pleased with the ready submission shown, and the prompt delivery of the hostages, but added, that as Carthage was in future to live in peace with all her neighbours, they commanded the citizens to deliver up their fleet and all the arms in their possession. Even to this the Carthaginians, knowing that resistance was impossible, consented, contenting themselves merely with representing to how sad a state this would reduce them, particularly as one of their own generals was at that moment threatening them with an army of 20,000 men. The answer returned was, that the consuls would look to that, and Roman officers were at once despatched to Carthage to receive the military stores which were to be delivered up. Two hundred thousand suits of armour, two thousand catapults, and a numberless multitude of spears and darts, were brought to the Roman camp, accompanied by the chief members of the senate, and the priests of the principal gods, who went in fear and trembling to learn the final decision of the consuls, and to try and move the Romans to compassion. The republic lay defenceless at the feet of its unrelenting foe; but Carthage had not yet drained the dregs of the bitter cup of humiliation. 'Your obedience is praiseworthy,' replied the consul Censorinus to their renewed professions of submission; 'but listen now with calmness and self-possession to the last demand of the senate of Rome. Depart from your native city, and settle wherever you like, provided it be at a distance of eighty stadia from the sea. Carthage is doomed to destruction!' On hearing these words, a cry of despair broke from the Carthaginians; their distress is described as being so affecting in its expression as even to draw tears from the eyes of their stern judges; but the sentence was passed, and must be obeyed. When, however, they returned to Carthage to announce the fatal doom to their fellow-citizens, who were awaiting their return with terror and impatience, it became evident that the spirit of free men was not yet entirely extinct in the breasts of the Carthaginians. When the first moment of despair was over, they deter-

mined, all deprived of their means of defence as they were, to make a desperate effort to resist the unjust usurpation of the Romans. The latter, thinking they had nothing to fear from a city which they had already totally disarmed, were in no great haste to march against Carthage, and the citizens availed themselves of the delay to prepare for defence. Hasdrubal, the general who had commanded in the war against Masinissa, and had fled from Carthage when his life was threatened in consequence, and had taken up arms against his country, now, in the hour of its utmost danger, relented, and placed the 20,000 men which he commanded at the disposal of the city. To him were intrusted the operations to be carried on in the open field, while the citizens within the walls were placed under the command of another general of the same name, and busily employed themselves in the fabrication and practice of arms. The temples, the palaces, the open markets and squares, were converted into so many workshops, and so great was the zeal and enthusiasm shown by all classes and both sexes, that the women cut off their hair to supply the want of materials for making ropes. But though the unanimity which now animated the Carthaginian people enabled them to protract their doom for two years more, it came too late to save the republic. The progress of the Romans was retarded not only by the bravery of the Carthaginians, but also by the blunders of the consuls, and the dissensions which had arisen between them and their ally Masinissa, as also by the demoralisation of their troops, who had entirely broken the bonds of discipline; but when young Scipio, who had been serving with the army in a subordinate capacity, was elected consul for the year 147, and was intrusted with the command in Africa, discipline and the good understanding with the Numidians were restored, no more blunders were committed, and all further resistance proved fruitless. But the last deeds of the Carthaginians were so entirely in harmony with the reputation for faithlessness and cruelty which they had gained for themselves, that pity for the deplorable fall of a republic which had for centuries maintained so prominent a position among nations, is almost forgotten in disgust at a people who sullied the last moments of their existence with acts of treachery and wanton barbarity. The treachery was the act of Himilco, one of the Carthaginian generals, who, towards the close of the war, when he had given up all hopes of serving his country, went over to the Romans with several thousand men; the cruelty was committed by Hasdrubal, who, at the last moment, when Scipio had already gained possession of the part of the city called Megara, threw himself into the castle, and from its walls presented to the horrified Romans a spectacle which even in the annals of Carthage had hardly been equalled. From motives of revenge, as well as with a view to depriving his fellow-citizens of all hope of accommodation with the enemy, he ordered all the Roman prisoners to be brought up upon the walls of the citadel, where, after being horribly mutilated, they were hurled from the battlements to perish miserably on the ground below.

Notwithstanding the advantages already obtained by Scipio, the citadel and the quarter of the city surrounding the inner harbour were still able to hold out against the enemy, and the siege was protracted for several months. At length, however, the vigour of Scipio's measures overcame the bold resistance of the besieged. A storm attempted in the spring of the year 146 could no longer be repelled by the citizens of Carthage, who

were by this time exhausted by famine and fatigue; but they still continued to defend themselves with the fury of despair in the houses which lined the streets leading from Cothön to Byrsa. But Scipio's soldiers next set fire to the houses, which, when they fell, buried under their ruins those who had sought refuge within their walls, and the citadel was reached, though its towering battlements and impenetrable walls still frowned defiance on the assailants. On the seventh day, however, deputies from the garrison were sent to demand free egress for those who desired to leave the fortress, which Hasdrubal, who was revelling in plenty, while his fellow-citizens were perishing from hunger, still refused to surrender. Scipio acceded to the demand of the deputies, and 50,000 Carthaginians issued from the gates of Byrsa; while Hasdrubal, with the last remnant of his adherents, fled to the temple of Æsculapius, situated on the summit of the fortified hill, and there defended himself some short time longer. When, however, every hope of escape proved vain, this man, betraying his last faithful followers, secretly left the temple, and throwing himself at the feet of Scipio, abjectly implored mercy for himself. The noble Roman, in reply, pointed to the little band whom he had deserted, and who, in their despair, had set fire to the temple; while Hasdrubal's wife, appearing at that instant on the roof of the temple, called down the vengeance of the gods and the contempt of mankind on her faithless husband; and having with her own hands put her two sons to death, threw herself into the flames, determined not to survive the disgrace of her family and the fall of her country. The funeral pyre of a woman signalled to the world the foundation of a mighty republic, and that of another woman lighted the republic to its grave. With the fall of Byrsa Carthage ceased to exist: whatever the flames had spared, was abandoned to the cupidity of the soldiers, with the exception of the sacred furniture of the temples, which was sent to Rome, and the works of art conquered in Sicily, which were restored to that province. The joy of Rome at the fall of Carthage was indescribable. Ten senators were immediately despatched to Africa to arrange, in conjunction with Scipio, the administration of the newly-won province, which, during many centuries, proved one of the firmest supports of the Roman empire. The walls of Carthage were levelled to the ground, the citizens transplanted elsewhere, and a solemn curse was pronounced upon the spot where once rose the city of Dido.

RECENT DISCOVERIES IN ASTRONOMY.

THE science of astronomy, which treats of the heavenly bodies, and of the earth considered as one of their number, is in some respects the most advanced of all the sciences that give information respecting the actual universe. Its laws are so few and simple, that every movement can be subjected to exact calculations; and hence the positions of the various bodies, and the periods of their remarkable configurations, can be accurately predicted long before the event. But this grand consummation, which is the crowning testimony of the perfection of any branch of knowledge, has been to a very great degree accelerated by the machinery and devices that have been brought to bear upon the phenomena themselves.

Another circumstance eminently favourable to the advance of astronomy, is the great encouragement and assistance rendered by almost every civilised government to its cultivation. It is not so exclusively dependent on the chance enthusiasm of private individuals as the generality of the sciences. Public observatories are erected, and endowed, for the express object of pushing forward the work of discovery. Nor are private inquirers wanting, in addition, to spend their strength and resources in the same field. The telescopes of Lord Rosse have poured out their gratuitous revelations upon the astonished world, at the same time that the national observatories have been affording a rich return to the public which supports them. The great practical good of contributing to the safety of navigation in the remotest seas has not been the only civilising result of astronomical discovery; and it cannot be doubted that a similar amount of encouragement given to other equally important sciences—to physics, chemistry, physiology, political and social economy—would, to an equal degree, accelerate their improvement, and yield innumerable contributions to the happiness and elevation of mankind.

The discoveries of recent years, in connection with the heavens, have resulted partly from the mere continuance of the systematic observations that have been going on for ages, and partly from the introduction of new and improved instruments, and methods of observation and calculation. Time alone is a great element of discovery in a class of appearances and movements that do not complete their courses until very long intervals have elapsed. Moreover, to note accurately, with a view to their future identification, a host of objects that have been always quoted as the very type of the innumerable—to number the stars, and to give to each its

name—this is not the work of a day; but without a perfect census of this great population, it is impossible ever to ascertain whether or not they change their condition from age to age. It is said that the sudden appearance of a new star led the Greek astronomer Hipparchus to make his catalogue of the stars, that it might be known to future ages whether the face of the heavens continued the same. The perfection of the star-catalogues of the present day has been instrumental to some of the most signal discoveries that have recently come to light.

Before alluding to the position lately assumed by astronomical science in consequence of the additional insight obtained into the celestial world, it may be proper to advert to the bearing of some parts of our present terrestrial knowledge upon the bodies that occupy the starry firmament. The mystery of the sun, whose gravity, light, heat, and other influences, govern and vivify the globe of our habitation, has been rendered more and more impenetrable by our arriving at the knowledge, that of all influences and modes of action we are acquainted with, not one has the power of absolutely creating heat. Our terrestrial sources of warmth (combustion, &c.) are manifestly nothing more than evolutions of an energy laid up or invested in the structure of material bodies; these bodies being incapable of yielding it except at the cost of some great change in their constitution, which cannot be repeated until a fresh supply from some primeval source has placed them where they were before. When charcoal is burned, it has combined with a portion of the substance of the atmosphere, and the two combining ingredients have formed a new substance, of a character different from either, which can no longer be used to supply heat, and which must receive back all that was given out in the combustion, if we desired the separate existence of the ingredients again. The heat-giving substances of the globe must therefore be considered merely as capable of yielding up a certain limited amount once for all, by suffering some degradation or alteration of their own structure; and in order to furnish a second supply, they must be reimbursed with power from on high to the full extent of what they have given out. Whence it happens that instead of an analogy between the solar fires and the terrestrial, there is the very strongest contrast that we can conceive. The one can supply warmth and illumination without ceasing, and without apparent decay; the other merely give out, under certain circumstances, certain portions of what has been communicated to themselves, being most thoroughly exhausted by the effort. And it could easily be shown that the more abstruse modes of producing heat from friction, electricity, or animal life, are in their nature as far from being inexhaustible in creating it as the case of common combustion. So that the conclusion is forced upon us, that we really know nothing of the nature of the great luminary which keeps up the animation of our planetary system; that we are not in a position to conceive or imagine the character of the huge luminous waves that tumble in unceasing effervescence on his vast surface. Of matter perpetually luminous and heat-giving there does not appear to be in all the realms of earth one shred or specimen. Whether such matter is confined to the sun, and to bodies of like nature, or whether portions of it may not be carried through space in the shape of comets and nebulous fragments, it is hard to conjecture.

Thus, notwithstanding all our experience of planetary existence, we seem

debarred from penetrating the great mystery of solar existence; and this exclusion is one of the many obstacles in the way of our comprehension of the starry firmament, which can be nothing else than an innumerable multitude of suns, made known to us by the far-reaching power of light. If we knew with tolerable precision the character and mechanism of one of those great sources of heat and light, we should be able to conceive something of all the rest, and to guess the reasons for the differences that prevail among them. But as it is, we are doomed to know nothing beyond the fact of their existence, coupled with some appreciation of their distances from us, and of certain motions that they are observed to keep up.

In giving a brief account of some of the most remarkable of the recent astronomical discoveries, and of the position they place us in as regards our knowledge of the heavens, we shall allude first to the Solar System, and next to the Sidereal System, or the firmament of the stars.

THE SOLAR SYSTEM.

Within the solar system the principal additions to our knowledge have been first in reference to the planets; secondly, on the subject of the comets; and lastly, in reference to meteors and shooting-stars.

The Planets.

About the beginning of the present century a group of no less than four small planets were successively discovered, revolving in a circle beyond the orbit of Mars, and within the orbit of Jupiter. These planets are singular from the fact, that they have all nearly the same distance from the sun, whereas the rest of the planets observe a regular gradation of distance, their orbits encircling one another at very great intervals. Being, in comparison with the old planets, mere fragments in point of size, it was supposed that there might possibly be others of a like nature, perhaps within the very same sphere, midway between Mars and Jupiter. An interval of eight-and-thirty years, however, elapsed before any more were discovered; but on the 8th of December 1845 a fifth member of the group was recognised by the astronomer Hencke; and in 1847 the same astronomer discovered a sixth; while two more were added by Hind, an English observer. In the following year Graham made one more addition to the number, making now nine in all; the new members of the group having the very same characters as the old. Instead of a gradation of orbits, they have all nearly the same mean distance from the sun; their orbits are much inclined to one another, and to the ecliptic plane where the earth moves around the sun, and from which the other planets deviate very little. The ellipses they describe are elongated, whereas the paths of the others are almost circular. The entire set are now recognised by the following names:—the newly-discovered ones being marked in *italics*—*Flora*, *Vesta*, *Iris*, *Hebe*, *Astræa*, *Juno*, *Ceres*, *Pallas*, *Diana*.

The circumstance chiefly contributing to the recent detection of these bodies (which are so very small, that at their distance they are wholly invisible to the naked eye, and are lost amid the countless host of small stars that lie along with them in the field of view of the telescope) is the

progress that has been made in mapping and recording all the stars lying in the zodiac belt, or in that zone of the heavens where the planets are usually found. In proportion as an accurate record is made of the permanent members of any part of the sphere, the facility in catching strangers is increased; and for the purposes of planetary discovery, the exploration of the zodiac belt is the great requisite. The accurate mapping of the other portions of the sky has been the instrument of a different class of revelations to be afterwards alluded to.

But in thus connecting the determination of the new members of the fragmentary group, we have passed over what happened soon after the discovery of the first of these—namely, the addition to the system of a planet of the order of concentric orbits, like Venus, Jupiter, or Saturn, and moving beyond the sphere of the most distant of the members already known, thus enlarging the boundaries of the solar system itself. Far beyond the track where Uranus (discovered by Herschel in 1781) accomplishes his immense circuit about the sun in a period of upwards of four-score years, there has been found suspended a planet moving by attraction to our common central luminary, and accomplishing a single revolution in 164 years; one course of his seasons being equal to two of the longest lives of the human denizens of our earth.

But more memorable than the discovery itself is the manner in which it was brought about. Had it happened in the way that Uranus and the family group between Mars and Jupiter were ascertained, it would still have been a great result of astronomical observation—a new example of human perseverance, and of the power of tracing individual units among confused multitudes. Such, however, was not the course in this instance.

The working out of the great law of universal and mutual gravitation has enabled mathematicians to calculate beforehand the motions and places of the planets, moons, and comets of the solar system, by computing both what we may call their natural rate of going (the course of each planet with the sun all to itself), and the alterations in that rate made by disturbing bodies. Each individual planet is a disturber of all the rest, and more particularly of its nearest neighbours, in consequence of their nearness, gravitation being stronger according to the proximity of the bodies. For example, the outermost planet of the old series, Uranus, is disturbed to a conspicuous extent by the action of Saturn, who is next within, and by Jupiter, the next to Saturn. Sometimes it may be observed that Uranus lags behind his proper place, and at other times is too fast, according to the position of his disturbers, as being either behind him, so to speak, dragging him back, or before him, dragging him forward. But knowing the mass or weight (which is the same as the gravitating attractiveness) of Saturn and Jupiter, and their distances and changes of distance from Uranus, it is possible, by calculation, to find out exactly how far the last-named body should advance or retreat by the effect of the united disturbing energies of the other two. Accordingly, the calculation has been made over and over again; but somehow it has never agreed with the fact. The calculated place of Uranus for any one day has not usually been found to be the real place where he was to be seen by actual observation.

Either the calculations have been incorrect, or there is some other cause.

of disturbance at work different from any that had been taken into account. Could this be a planet moving in an orbit beyond, and enclosing the track of, Uranus, but not yet discovered—an unseen power making itself thus felt upon one of the bodies within our ken? The supposition is not unreasonable. Uranus is far off, indeed, from the sun; but is he the farthest, the last tributary to the great centre of our system?

If not, there may be an additional planet stealing with undiscovered steps among that multitude of stars where already the members of the solar family have been laboriously picked out. But the search for such a body in the densely-peopled zodiacal belt, though not altogether hopeless, is indeed a Herculean task. In the course of years or generations, the wanderer is pretty sure to be caught; but in the meantime it keeps up its tantalising disturbance, baffling our best calculations, and, like a thief in the night, leaving no doubt of its existence, though continually evading our watch.

Human ingenuity has, however, suggested one resource. Looking at the character of the disturbance, it may be possible to find the direction of it, or the place where the disturber lies at some given moment. When the disturbed planet, for instance, is found lagging more than he ought, it seems plain that the influence is to be sought behind him, as it were, or in some direction nearly the reverse of the course of Uranus at the time. This fixes the unknown body to certain limits. Then, again, when Uranus is too far forward, an influence ahead must be recognised, and the place of the disturbing cause is again limited. Even from such vague indications as these, the search might be safely restricted to some small portion of the zodiacal belt.

The actual facts of the case, in reference to the deviations of the calculated from the observed places of Uranus, are these:—From about the year 1795 to 1822, the observed place was steadily in advance of the computed place; from this last epoch a sort of retreat took place, till 'in 1830-31 the tabular and observed longitudes agreed. But, far from remaining in accordance, the planet, still losing ground, fell, and continued to fall behind its calculated place; and that with such rapidity, as to make it evident that the existing tables (or calculations) could no longer be received as representing with any tolerable precision the true laws of its motion.'

It occurred about the same time to two mathematicians, Mr Adams in England, and M. Leverrier in France, to set out from the observed deviations, and to employ them as data for calculating the distance and situation of the unknown body. This was an attempt wholly new in astronomical calculation. The usual problem is: given a disturbing cause, its amount and direction, to find the effect on the body disturbed. But the proposed one is the inverse of this—namely, *given the disturbances, to find the disturbing planet*, or to determine its orbit, and its place in that orbit, so that a telescope might on any given day be applied to the exact spot where it is to be found. As a general rule, inverse problems are more difficult than direct ones; division is in advance of multiplication, and the extraction of the cube root a vastly more perplexing business than raising a number to the cube. Thus it was with the interesting attempt of Adams and Leverrier: it contained a depth of difficulty and perplexity much beyond the ordinary questions of perturbation, although these are

understood to be the most arduous mathematical exercises that can well engage the most skilled calculators.

Having for data, or for known quantities, the amount and character of the disturbance, the explorers of the new planet made certain probable assumptions, without which the question would have surpassed their utmost skill. Besides taking for granted that the planet revolved in the same plane and in the same direction as Uranus (following the analogy of the other planets), they assumed that a remarkable relation subsisting among the existing members of the system—namely, that each is at double the distance from the sun of the one next within it—extended likewise to the exterior unknown member; on which supposition it would revolve at double the distance of Uranus, or about thirty-eight times the earth's distance from the sun. This latter assumption, supported as it was by strict analogy within the old system, turned out to be a mistake.

The question having been wrought out by each of the two parties, and brought to a result much about the same time by both, M. Leverrier pointed out to Dr Galle, one of the astronomers of the Royal Observatory of Berlin, where he considered the planet ought to be on the 23d of September 1846. On that day, accordingly, the place assigned was explored, and a body was actually found which had no place in the zodiacal chart. The probability therefore was, that this must be the planet. Nothing was wanted to settle the point but a little time, for the purpose of showing whether it moved or not. The next night was sufficient to bring this to the test, and the probability became a certainty. Within less than two breadths of the moon from the position assigned by M. Leverrier, the real disturber was detected, and a new planet added to our system, henceforth recognised under the name of NEPTUNE.

Although M. Leverrier had the glory of bringing about the first verification and public announcement of the planet, Mr Adams of Cambridge had some weeks before intimated the result of his calculations to Professor Challis of that university, who saw the body on the 4th and on the 12th of August preceding, and 'noted its place on those two days (among those of other stars) for reobservation. He, however, postponed the *comparison* of the places observed, and not possessing Dr Bremiker's chart (which would have indicated at once the presence of an unmapped star), remained in ignorance of the planet's existence as a visible object till its announcement as such by Dr Galle.' It was therefore from no fault of Mr Adams that he was not the first discoverer of the planet; and accordingly the honours of the achievement have been assigned equally to him and Leverrier.

From the observations made on the planet since its discovery, it appears that its distance from the sun is considerably less than double the distance of Uranus, being thirty radii of the orbit of the earth, or nearly three thousand millions of miles. The time of one revolution in such a remote track is 60,127 days, or 164 years; about double the year of Uranus. Its mass is somewhat greater than Uranus, as well as its magnitude; the diameter across being 41,500 miles, or less than half the diameter of Jupiter. The density would be about the same as Saturn, which is considerably lighter than Jupiter. It thus appears that Neptune ranks with the three other remote planets in respect of magnitude, and is immensely superior to the four nearest the sun.

Nothing can yet be stated with any degree of certainty as to the physical appearance of the planet. A strong suspicion has been entertained of its being surrounded with a ring like Saturn's. It would appear also to be attended by two satellites; the existence of one being considered certain, and that of a second very probable.

This great discovery spreads out the area of the solar system far beyond our previous conceptions, and makes us cognisant of eight first-class planets, with orbits enclosing one another at vast intervals. To these we have to add the asteroid family between Mars and Jupiter, now extended to nine members; thus making in all seventeen distinct planetary bodies, or nearly three times the number known to the ancients, or discernible by the unassisted vision. Our earth may be said to fraternise with sixteen distinct orbs of her own species.

The Comets.

The knowledge of these bodies has of late years been much extended by the continuous application of the system of careful scrutiny that has been extended to all the phenomena in the heavens. The greatest step ever made in the comprehension of their nature was when Newton showed their dependence on the sun, and their revolution in orbits around him as a centre, in the manner of the planets, but with tracks much more eccentric or elongated than theirs. Since then, their motions have been made a matter of exact calculation, and the return of many of them predicted, so that a certain number are now included among the recognised and familiar members of the solar system, and are duly expected at the proper season when they make their near approach to the sun, and thereby become visible.

The actual number of comets attached to the solar system must be at least many thousands. Those actually observed by astronomers, or recorded in history, amount to several hundreds; and from the long periods of revolution of some of them, they must in their track go far beyond the outermost planetary sphere, or beyond the sweep of Neptune. Indeed, from the character of the motions of a few of them that have their projecting force very great in comparison with the sun's attraction, it would seem that after one visit to the sun, they go off into space almost in a straight line, never to return to their supposed mother sphere. This intense projectile power which carries them so far from the centre of the system, and causes one contrast between them and the well-balanced forces of the planets, is, however, only of a piece with the violent commotions and intense repulsive energies manifested in the interior of their bodies, and rendered apparent by the development of their tails, or by the extraordinary shooting out of their masses into streams, sometimes of such length as to be capable of spanning the entire orbit of a planet's revolution.

The material of the comets is as mysterious as the composition of the sun himself. Either it is self-luminous, like the sun's atmospheric constituents, or its excessive rarity enables it to be pierced through and through with the sun's own rays, like a cloud in a summer day. Yet 'the most unsubstantial clouds which float in the highest region of our atmosphere, and seem at sunset to be drenched in light, and to glow throughout their whole depth, as if in actual ignition, without any shadow or dark side, must

be looked upon as dense and massive bodies compared with the filmy and all but spiritual texture of a comet.' Their tails, or rather the expansion of their mass, is very much dependent on their approach to the sun; in fact, it is only in their perihelion passage that they acquire all their splendour.

The recorded comets of history, which have so often terrified the nations, have of late years been compared with one another and with the comets appearing since the time of Newton, and have been subjected to calculation according to the laws of gravity. The first identification of a number of successive appearances was made on the well-known comet of Halley, whose last appearance was in 1835, at the very time appointed for it by calculation. On this occasion it was made the subject of very minute observation and study by several astronomers, who published careful drawings of its successive aspects, to enable the world to form some definite conclusions as to the character of the forces that are at work upon this class of bodies. Sir John Herschel, in his 'Outlines of Astronomy,' gives the following conclusions as deducible in his opinion from the observations thus made:—

'1st, That the matter of the nucleus of a comet is powerfully excited and dilated into a vaporous state by the action of the sun's rays, escaping in streams and jets at those points of its surface which oppose the least resistance, and in all probability throwing that surface or the nucleus itself into irregular motions by its reaction in the act of so escaping, and thus altering its direction.

'2dly, That this process chiefly takes place in that portion of the nucleus which is turned towards the sun, the vapour escaping chiefly in that direction.

'3dly, That when so emitted, it is prevented from proceeding in the direction originally impressed upon it, by some force directed from the sun, drifting it back, and carrying it out to vast distances behind the nucleus, forming the tail, or so much of the tail as can be considered as consisting of material substance.

'4thly, That this force, whatever its nature, acts unequally on the materials of the comet, the greater portion remaining unvaporised, and a considerable part of the vapour actually produced remaining in its neighbourhood, forming the head and coma (or tail).

'5thly, That the force thus acting on the materials of the tail cannot possibly be identical with the ordinary gravitation of matter, being centrifugal or repulsive, as respects the sun, and of an energy very far exceeding the gravitating force towards that luminary. This will be evident if we consider the enormous velocity with which the matter of the tail is carried backwards in opposition both to the motion which it had as part of the nucleus, and to that which it acquired in the act of its emission, both which motions have to be destroyed, in the first instance, before any movement in the contrary direction can be impressed.

'That unless the matter of the tail, thus repelled from the sun, be acted by a peculiar and highly-energetic attraction to the nucleus, different, and exceptional to, the ordinary power of gravitation, it must leave the nucleus altogether, being in effect carried far beyond the coercive power of so feeble a gravitating force as would correspond to the minute mass of the nucleus; and it is therefore very conceivable that a comet may

lose, at every approach to the sun, a portion of that peculiar matter, whatever it may be, on which the production of its tail depends; the remainder being of course less excitable by the solar action, and more impassive to his rays, and therefore, *pro tanto*, more nearly approximating to the nature of the planetary bodies.'

We are thus led to imagine that the comets possess, if they are not wholly made up of, ingredients totally unlike any substance to be found on the earth. Even this assumed process of vaporising a portion of the formerly condensed material of the nucleus by the power of the sun's rays, is very different from terrestrial evaporation, which converts the body into an invisible gas. We may, however, suppose it not unlikely that matter of this kind may exist in the comets too, for it is sometimes observed that the head and expanded body or tail of a full-blown comet are separated by a transparent interval, which cannot be conceived as a total vacuity, but may consist of matter of a kind that freely transmits light. In this matter the cloudy and visible substance may float, as the fire-clouds of the solar surface are supposed to float in his transparent atmosphere. But it is extremely unsafe to carry out analogies between things so totally different as terrestrial substances and the composition of comets. In these last bodies we have, so to speak, *an enormous predominance of force over matter*; in other words, an exceedingly light mass is actuated by energies that give it a most gigantic expansion and an immense appearance. The tail of a great comet, says Sir John Herschel, may consist, for aught we can tell, of only a very few pounds or even ounces of matter. Yet this handful of substance is capable of expanding into a luminous band of millions of miles in length, and of retaining its cohesion over all that interval, so as to collapse again in whole or in part after the expansive agency of the sun is diminished by distance. In comparison of this effect our globe is a dull, dead, inert mass, animated with no forces but such as are of the feeblest description. The contemplation of the great cometic manifestations is thus very valuable in expanding our views of the capabilities and varied character of the material universe, and in correcting our natural disposition to set up what we find about ourselves as the type and pattern of creation at large.

The great comet of 1680 is estimated to have a period of about 575 years, and is supposed to coincide with a magnificent one observed in Constantinople and in Palestine in the year 1105, and with that of A.D. 575, which was seen at noonday close to the sun. Farther back still, it is conceived to agree with the comet of 43 B.C., which appeared after the death of Cæsar; and it is even identified with the remote ages in the case of 'two other comets, mention of which occurs in the "Sibylline Oracles," and in a passage in Homer, and which are referred, as well as the obscurity of chronology and the indications themselves will allow, to the years 618 and 1194 B.C.' Seeing that the commencement of the historical period of Greek history is fixed by Mr Grote, the highest authority on the subject, at 776 B.C., an astronomical fact of a decisive kind that could connect itself with any human occurrence four centuries earlier would be intensely interesting. A solar eclipse, for example, that could be shown to have been actually observed at that time would fix a period in early chronology where none exists at present. But the appearance of a great comet is not of itself sufficient for this purpose, there being, in fact, many such comets,

rendering it difficult to say, in the absence of confirmatory circumstances, whether even an actual observation is really recorded.

Great interest has recently been attached to certain comets of short period, which admit of being observed with such frequency, as to render the knowledge of their motions very precise and accurate. The first noticed of this class is the comet of Encke, whose revolution occupies only 1211 days, of about three years and four months. The most remarkable fact connected with its reappearances—a considerable number of these having now been observed—is the gradual contraction or diminution of its orbit, as if it were unable, from some cause or other, to maintain its distance from the sun. There being nothing in the nature of planetary or cometary motions to cause this dwindling of their track, the only supposition that can account for it is the existence of a thin medium in the planetary spaces, with the power of resisting in some degree the motion of all bodies, and making itself known conspicuously on such as are of a very light texture. The question of a resisting medium, as against the total vacuity of celestial space, has often been agitated in connection with various hypotheses, such as the doctrine of the transmission of light by the undulations of an ethereal substance or medium; but it seems reserved for the observations on the comets to establish the existence of any such medium. Now the decay or collapse of the orbit of the comet of Encke is the most decisive testimony yet afforded on the point. But even if it could be proved that such a fluid was present, with power to obstruct motions through it, there would still remain the question of its connection with the other great natural agencies that penetrate space and pass through its bosom.

Meteors and Shooting-Stars.

A class of bodies, distinct from both planets and comets, seems now to be distinctly recognised as belonging to the solar system. The meteors and shooting-stars, which are of so frequent occurrence, cannot with the least probability be traced to any other cause than the existence of a host of wandering bodies too small to be ordinarily visible, and now and then passing the earth so close as to enter the atmosphere. Sometimes they actually descend to the ground, and present themselves to our examination, when they are seen to be masses of stone or metal, similar to what may be found in the earth's crust. Others of them would appear not to be solid masses, but thin gaseous patches, which undergo changes of form, and not unfrequently break up before our eyes into sparks like a rocket. But whether solid or not, the only likely explanation that can be offered is to conceive them as individuals of a countless host of shreds and fragments flying through the planetary spaces in obedience to the same laws as the planets themselves; perhaps performing with due punctuality their elliptic revolutions about the common centre of the system.

On some occasions the shooting-stars have occurred in great numbers, 'so as to convey the idea of a shower of rockets, or of snow-flakes, falling, and brilliantly illuminating the whole heavens for hours together, and that not in one locality, but over whole continents and oceans, and even (in one instance) in both hemispheres.' Such occurrences have uniformly taken place in the month of November, and in the night either of the 12th and

13th or of the 13th and 14th of the month. A less brilliant display than the other (which last has come to be designated the November meteors) has sometimes happened on the 10th of August.

Sir John Herschel has pointed out in a very convincing way the supposition involved in these coincidences of meteoric phenomena with particular days of the year. On the 13th of November the earth is always at the same place in its annual revolution, and if it regularly encounters a stream of bodies at that spot, the reason must be that a vast procession of them exists in the solar system, which in its path crosses the place of earth at that time. If an unbroken circle of them existed, extending all the way round the sun, then the earth would be sure to be immersed in them every year, and they would regularly blaze out on all sides on the occasion of this passage; but as years sometimes pass over without their appearing, it follows that there cannot be a complete ring, which would be something very gigantic indeed. We must suppose that there are merely fractions of a ring, or streams of great length, which go round in a regular planetary course, and occasionally come upon that particular part of their track which crosses the earth's place on the 13th of November, at the very time when the earth itself is there also.

Such phenomena, so conceived, tend still farther to enlarge our ideas of the extent and riches of our solar system. The meagre notion of ancient times, which could see only a sun, moon, and six planets, is now exchanged for a mass of positive information, including not merely an enlargement of the number of members of the recognised classes, but also two new classes of a still more extraordinary character, and numbering a countless host of individuals. The *aerolites*, as the meteoric bodies are called, must be more in number than the sand on the sea-shore, although, from the vast widths of space allowed them to wander in, collisions between them and the planets may be very rare.

THE SIDEREAL SYSTEM.

We now pass from the account of what has recently been discovered within the system that includes our earth and ourselves, to what has been made out in the far-off systems and galaxies which make up the expanse of the starry firmament. Notwithstanding the immense distance of our outermost planet Neptune, and of the orbs of the comets of long period, the stride from the farthest point of these to the very nearest of the starry host is of itself like the passage from earth to heaven: if the journey from the sun to Neptune were counted in *days*, tens, hundreds, or thousands of *years* would elapse before the intervals between the sun and one of his brother suns could be traversed. To our natural vision, the planets of our system lie strewn among the starry fields, as if equally remote with them; but we have now learned, by the application of our reasoning powers, to make the widest possible distinction between what is within and what is beyond the system where our sun is the central and governing power. A vast gulf, an immeasurable abyss, lies between the broad spaces enclosed by our planetary tracks and the nearest body that can be descried beyond them. The universe, with all its store of material orbs, is still more prodigal of inter-

vening spaces. The largest mass that is suspended in the sky is a mite in comparison of the interval between it and its next neighbour; there is never any lack of room for the most wide-ranging motions.

Keeping in view the grand distinction there is between the solar system and the sidereal system, between the family of one luminary and the aggregate of luminaries that make up the whole visible universe, we shall now attempt to describe a few of the results of recent inquiries into the constitution of this aggregate. Universal space, with all that it contains, the immense whole of created things, whose face and physiognomy is the starry sky, the unity that comprehends all worlds—this, if not the most interesting, is at least the largest subject that can occupy the intellect of man. If our frame were suited to endure without fatigue the vastness and the tension of such a pursuit, it would without doubt be a most acceptable sphere of speculative enterprise. We have a natural longing to behold the glory of the great all-comprehending universe; but, like the ancient lawgiver, we are very soon taught that our strength is not equal to our desires.

It is nevertheless an extremely important discipline to accustom ourselves betimes to conceive the outspread galaxies of heaven with all their hosts, and signs, and wonders. The prevailing foible and weakness of humanity is to grovel on the earth, and to dwell exclusively in the little, the near, and the transitory. The interests of one's own small personality, and of a few others equally small, make the staple of a commonplace existence; and, as a consequence, the vicissitudes of life shock and surprise us with extreme violence. A counteractive, as well as a source of elevation of thought, might be obtained through those expansive studies that comprehend the successive orders of creation, up to that largest of all possible conceptions—the congregated host of worlds that fill the starry canopy.

The Stars.

The first prominent feature that strikes our observation in glancing over the midnight sky is the unequal brightness of the different luminaries. Beginning at a few which have extreme brilliancy, we gradually descend to classes fainter and fainter, till we come to such as we can just discern, and no more; and we can readily entertain the presumption that if our eyes were a little better, we might see many others that are too faint for our feeble sight. This presumption is actually verified by that great enlarger of vision, the telescope. On applying one of these instruments to any spot of the heavens, numbers of new stars come into view, of various orders of brightness, the same gradation prevailing among them as among those within the ken of the naked eye.

A regular classification of the different orders of the stars, in respect of brightness, has been made: they have been divided into stars of the first, second, third, &c. magnitudes; and up to the limits of telescopic vision, as many as sixteen magnitudes have been fixed. The twenty-three or twenty-four brightest stars in both hemispheres have been reckoned of the first magnitude, although considerable differences exist among these, there being one of them, Sirius, the Dog-Star, apparent to the eye as beyond question the brightest star in the heavens. About fifty or sixty inferior to those constitute the second magnitude. The third includes 'about 200 yet smaller; and so on; the numbers increasing very rapidly as we descend in

the scale of brightness, the whole number of stars already registered, down to the seventh magnitude inclusive, amounting to from 12,000 to 15,000.' The stars of the fifth order are about the lowest that are easily visible to the naked eye. It is, however, possible in a clear sky to discern the individuals of the sixth magnitude. The brightest objects of the heavens, of a starry aspect, are the two planets Venus and Jupiter; even the Dog-Star is very considerably inferior in brightness to these.

The next peculiarity that strikes the most casual observer is the very unequal distribution of the stars in different parts of the heavens. At a first glance they would seem as if strewn at random, but on a closer inspection there appears a decided intention, as it were, to crowd some regions to a very great density, while in others they are very sparingly distributed.

Nobody has ever looked at the heavens attentively without being arrested by the zone or stream of the Milky Way, so called from its milk-white lustre, which presents a marked contrast to the deep blue of the ordinary surface of the sky. The observer cannot fail to see that, whatever may be the cause of the milky aspect, a vast crowding of visible stars of all magnitudes takes place over the whole of that region. But by bringing the telescope in aid of the sight, it is made manifest that the lustre is owing to nothing else but stars; the naked eye being baffled in its attempt to discern the individuals, while by their vast numbers and close packing they conspire to affect the vision as with a nebulous haze.

The Milky Way may be traced as a starry zone extending all round the heavens, although with unequal breadth and some irregularities. Sir John Herschel, in his 'Outlines of Astronomy,' p. 527, has minutely described the course it takes among the constellations, and its form, branches, and interruptions throughout; assigning as a reason, rendering such a minute description necessary, that it is laid down very loosely and incorrectly in all the celestial maps and globes.

It is not enough to remark the condensation of stars along this milky zone; we are called upon likewise to note a gradual density in the packing as we approach its sides from a distance. In fact it may be affirmed that all the way from the edges of the conspicuous belt there is a gradual diminution in the number of stars till we come to the spaces farthest removed from it on both sides, and in these there is the least denseness of crowding. There is thus a principle of regularity and system introduced into the apparently random distribution of the celestial multitudes. A vast zone encircles the whole sphere of the heavens, not very regular, it is true, (the greatest irregularity being its division into two branches, which continue separate for some time, and then come together again), but, on the whole, very nearly circular in its course, crowded apparently to the last degree of condensation with star-dust, forming the great metropolitan area of the starry population, and from it on each side a gradual diminution of closeness being apparent towards the spaces at its two poles, which exhibit, as it were, the minimum density of stellar existence.

The elder Herschel was the first to infer from this peculiar array the probable arrangement and constitution of the galaxy of the visible firmament. He conceived that the crowding of the milky zone, as contrasted with the sparseness of the spaces furthest removed from it on both sides,

might arise from the circumstance, that the whole galaxy makes up a flat ring or millstone-shaped mass, not perfectly even or straight, but, on the whole, little removed from this shape, so that the length and breadth of the mass very much exceed the thickness. It is certain that if our system were situated in the interior of an aggregate of this description, the appearances would be similar to what actually exists. Looking through the mass in the directions of its greatest depth, or through the edges, a dense multitude of stars would intercept the view; while, on the other hand, in looking out through the sides, the intervening stars would be so much fewer, that they would have a comparatively rarefied and scattered aspect. A view out at the side, but more slanting, would discover an increase in the numbers, which would become greater as we turned the glance towards the edges, the place of greatest depth and crowding.

Assuming that this starry plane or stratum is made up of stars of a nearly uniform degree of scattering, the comparative apparent density would depend on the situation of our own system within the mass. Were we exactly in a central position, or midway between the two sides, and equally distant from all parts of the rim or border, our view would show a uniform density of the milky zone all round, and a uniform density and rate of decrease on each side. But suppose we were to inhabit the rim or circumference of the galaxy; in that case, looking on one side, there are no stars beyond us, and unless other galaxies existed in the far distance to people the firmament in that direction, there would be nothing but an outstretched canopy of darkness and vacuity. The aspect would be very different on the other side—that is, looking through the interior of our galaxy, and across its whole length—consisting of stars beyond stars in its opposite circumference, and all crowded together in one narrow field of view. The line or direction of greatest density would be diametrically through the mass; and in all sides of this line there would be a decrease, but not at a uniform rate, being most rapid as the glance moved sideways from the plane, and least rapid as it moved towards its edges. The appearance, on the whole, would be a hemisphere of stars, condensed in the centre, and becoming gradually rarer on all sides towards the edges; but presenting also an arch or a milky way, though not of uniform density, there being a regular decrease from the centre to the extremities in the edge of the hemisphere.

That such a position in the circumference of the galaxy is not the one we occupy, is proved by the actual appearance, for the milky zone extends round the whole sphere of the heavens, and on every side stars are descried. It is evident, therefore, that our position is somewhere in the interior of the mass; but according to the reasoning of Sir John Herschel, founded on the character of the Milky Way in the southern hemisphere, the mass is not an evenly-distributed stratum, but rather an immense ring with a considerable central vacuity, where we are situated eccentrically, or nearer the southern than the northern part of its circuit. It is not meant that the solar star is a solitary inhabitant in the great hollow of the galaxy, but that comparatively few bodies are situated there, and our system is one of the few. Again, from the rate of diminution of density on each side of the zone, it appears that we are not equally distant from the two sides, but nearer one than the other.

Notwithstanding the evidence that goes to confirm the view of Herschel as to our being attached to one of the members of a distinct galaxy, or aggregate of stars, far removed from every other aggregate, and having the character of a connected system, very great irregularities prevail in its appearance, and show that its form and arrangement is not according to any simple or uniform type. Not only is there the remarkable bifurcation of the Milky Way already noticed, which would give the idea of a cleft or a double edge in one part of the galaxy; but there are places in the zone 'exhibiting a rapid succession of closely-clustering rich patches separated by comparatively poor intervals, and indeed in some instances by spaces absolutely dark, and *completely devoid of any star*, even of the smallest telescopic magnitude.' Thus although the galaxy itself is to be considered as a compact and detached assemblage of luminaries, this assemblage is itself resolvable into clustering forms and distinguishable groups, which it is difficult to include under any known principle of arrangement or any regular figure. Indeed our means of viewing the whole are so inadequate, that we are not entitled to make the attempt.

The notion of our existing in a separable galaxy of stars, not comprehending the entire starry universe, but constituting only a single individual of its innumerable galaxies, depends upon our being able distinctly to make out the fact, that the visible firmament is for the most part a mass clearly bounded and limited to the vision, and separated by an unfathomable abyss from the other firmaments which it is possible for us to trace in their supposed inconceivable remoteness. We must show that we have a clear view of the very furthest edge of our stratum, and that there is nothing beyond it until we come to the nebulous masses that are the indication of those independent galaxies that cannot be confounded with ours. Now the appearances laid open to the telescope seem to furnish a complete proof of this somewhat perilous doctrine. For if a continuous mass of stars extending unbroken to the infinite depths of space were to exist, their aspect would inevitably be that of visible stars scattered over a nebulous haze, which every new addition of telescopic power would resolve more and more, but never come to the end of. A pure black starless sky would in that case be an impossibility. But the fact is, that after applying a certain magnifying power, most of the stars become distinctly visible, and are seen to be situated in a starless gloom; and no addition to the range of telescopic penetration can gather an additional vestige out of the darkness. In short, there is a manifest transition from the starry to the starless heaven, from the interior crowding of the galaxy to the vast untroubled vacuities of the extra-galactic spaces, where no existence can be tracked until after crossing the immeasurable void that intervenes between our mother-firmament and some neighbour far away.

Sometimes the exception is said to prove the rule, and in the present case something like this happens; for although the limit of the galaxy of the Milky Way is in general distinctly described, there are places where this cannot be said, as 'in that interesting region near its point of bifurcation in Scorpio, where through the hollows and deep recesses of its complicated structure we behold what has all the appearance of a wide and indefinitely-prolonged area, strewed over with discontinuous masses and clouds of stars which the telescope at length refuses to analyse. Whatever other conclu-

sions we may draw, this must anyhow be regarded as the direction of the greatest linear extension of the ground-plan of our galaxy.*

The separation of the entire whole of the created universe into detached galaxies, each containing its countless myriads of stars, cannot be fully comprehended without taking a view of the observations and discoveries that bear upon the *nebulae*; but before touching upon these, it will be well to allude to some important results contributing to elucidate the actual dimensions of the starry expanses, and also to other peculiarities suggested by the scrutiny of individual stars.

In the first place, then—What is *the distance of the stars*? The distances of the sun, moon, and planets have been known for some time through the application of a process of trigonometrical measurement, similar to what is used for the determination of the distance of inaccessible objects on the earth. It was natural to attempt a similar process on the stars; but for a long time nothing could be ascertained except the fact of the enormous amount of their distance, this being the only reason of the failure of the process to give the exact estimate. So far removed are these bodies, that by shifting our position two hundred millions of miles, no displacement could for a long time be discovered by means of the most delicate instruments. The diameter of the earth's orbit is the largest base line that could be adopted in the triangulation; and as no measurable angle at a star's distance could be ascertained to subtend this line, although it is possible to measure an angle of one second (that is, 3600th part of a degree, each degree being the 360th of a circle), it could only be inferred that the stars experimented on were not less than *twenty millions of millions of miles* away from us, or nearly seven hundred times farther removed from our sun than his outermost known attendant—the planet Neptune! A ray of light, the most rapid of all known movements, would take nearly three years and a quarter to traverse this interval, and after going so long, would not, on this supposition, reach the nearest of the fixed stars!

But the difficulties attending this interesting problem have at length been overcome, and the distances of a number of stars actually measured. The first of these was the star marked by astronomers α Centauri, a bright, and, on many accounts, remarkable star in the southern hemisphere. 'From a series of observations of this star, made at the Royal Observatory of the Cape of Good Hope in the years 1832 and 1833 by Professor Henderson, with the mural circle of that establishment, a parallax to the amount of an entire second was concluded on his reduction of the observations in question after his return to England. Subsequent observations by Mr Maclear, partly with the same, and partly with a new and far more efficiently-constructed instrument of the same description, made in the years 1839 and 1840, have fully confirmed the reality of the parallax discovered by Professor Henderson's observations, though with a slight diminution in its concluded amount, which comes out equal to $0^{\circ}.9128$, or about $\frac{1}{10}$ ths of a second; *bright stars in its immediate neighbourhood being unaffected by a similar periodical displacement, and thus affording satisfactory proof that the displacement indicated in the case of the star in question is not merely*

* Sir John Herschel's Outlines of Astronomy, p. 538.

a result of annual variations of temperature (affecting the instrument). As it is impossible at present to answer for so minute a quantity as that by which this result differs from an exact second, we may consider the distance of this star as approximately expressed by the distance already stated as corresponding to an annual parallax of one second.*

The next determination of this kind was effected by Bessel, a celebrated astronomer at Königsberg, on the star called 61 Cygni, and ended in assigning to the star a parallax of about one-third of a second, and consequently a distance of sixty billions of millions, or ten years' journey of a ray of light. The process used on this occasion involved a very great refinement on the old method, so that by it parallactic angles of still smaller dimensions can be detected.

Sir John Herschel gives the following 'list of stars to which parallax has been, up to the present time, more or less probably assigned:—

α Centauri,	-	-	-	-	0".913 (Henderson)
61 Cygni,	-	-	-	-	0.348 (Bessel)
α Lyre,	-	-	-	-	0.261 (Struve)
Sirius,	-	-	-	-	0.230 (Henderson)
1830. Groombridge,†	-	-	-	-	0.226 (Peters)
Ursæ Majoris,	-	-	-	-	0.133 ...
Arcturus,	-	-	-	-	0.127 ...
Polaris,	-	-	-	-	0.067 ...
Capella,	-	-	-	-	0.046 ...

Sirius, or the Dog-Star, has already been alluded to as the brightest in the heavens. It now appears that this is not from its being the nearest, for the parallax given to it by Professor Henderson makes it almost four times farther off than α Centauri, or about eighty billions of miles. We have thus a decisive proof of the inequality of the stars, and the fact is abundantly confirmed in many other determinations.

It cannot be made out whether this inequality belongs to the size alone, or to the intrinsic brilliancy of the light, or to both combined. The size of the planets is found, after knowing their distance, by means of the breadth of their disk; but a star never shows a disk—it is merely a luminous point. There remains, therefore, no ground of comparison except the intensity of their light. A method has been adopted of comparing the light of the sun with the light of a star through the medium of the moon; and by this method it has been computed that the intrinsic splendour of α Centauri is more than twice as great as our sun, making due allowance for their respective distances; while Sirius is actually equal to sixty-three suns. We have thus conclusive reasons for conceiving of the starry firmament as made up of luminaries akin to the central luminary of our planetary system.

The minute scrutiny of the starry heavens has led to the detection of a multitude of singular facts relative to their individual appearances. The aspect of the sky to an ordinary observer suggests nothing but calm stillness and eternal and majestic quiescence like the beatitude of a Hindoo divinity. Better observation dispels this fallacy. Such astounding phenomena as the

* Sir John Herschel's Outlines of Astronomy, p. 542.

† Groombridge's Catalogue of Circumpolar Stars.

momentary outburst of a new star, perhaps again to be extinguished, lead the mind to a different class of reflections. Looking upon each star as a great sun, and imagining the possibility of its light going out in a moment, we might even allow ourselves to be afflicted with the notion of our own centre of light being uncertain in its continuance. A 'little knowledge' of this kind would be 'a dangerous thing;' and it would behove us to dispel the terrors of our narrow views by the certainties of a wider range of study.

The extraordinary phenomena of *temporary stars* occur now and then, and records of many of them have been transmitted from past ages. 'Such is the star which, suddenly appearing some time about the year 125 B.C., and which was visible in the daytime, is said to have attracted the attention of Hipparchus, and led him to draw up a catalogue of the stars, the earliest on record. Such, too, was the star which appeared A.D. 389, near α Aquilæ, remaining for three weeks as bright as Venus, and disappearing entirely. In the years 945, 1264, and 1572, brilliant stars appeared in the region of the heavens between Cepheus and Cassiopeia; and from the imperfect account we have of the places of the two earlier, as compared with that of the last, which was well determined, as well as from the tolerably near coincidence of the intervals of their appearance, we may suspect them, with Goodricke, to be one and the same star, with a period of 312, or perhaps of 156 years. The appearance of the star of 1572 was so sudden, that Tycho Brahé, a celebrated Danish astronomer, returning one evening (the 11th of November) from his laboratory to his dwelling-house, was surprised to find a group of country people gazing at a star which he was sure did not exist half an hour before. This was the star in question. It was then as bright as Sirius, and continued to increase till it surpassed Jupiter when brightest, and was visible at mid-day. It began to diminish in December of the same year, and in March 1574 had entirely disappeared. So also on the 10th of October 1604 a star of this kind, and not less brilliant, burst forth in the constellation of Serpentarius, which continued visible till October 1605.

'Similar phenomena, though of a less splendid character, have taken place more recently, as in the case of the star of the third magnitude discovered in 1670 by Anthelm in the head of the Swan, which, after becoming completely invisible, reappeared, and after undergoing one or two singular fluctuations of light during two years, at last died away entirely, and has not since been seen.'*

These startling and unaccountable manifestations, sufficient to discredit our notions of the solemn silence and unchanging placidity of the bodies dwelling in the sky, have come to be looked upon as the extreme cases of a phenomenon of wide-spread and recognised occurrence—namely, what are called the *variable stars*, and also, from the regularity of most of them, the *periodical stars*. These are stars whose brightness is subject to fits of variation, decreasing and increasing by regular turns. A certain small number of them have had their periods accurately ascertained, so that it is possible to predict their phases, nearly as in the case of the moon.

* Sir John Herschel's *Outlines of Astronomy*, p. 560.

Thus the star called *Omicron*, in the constellation Cetus, is found to have a period of 331 days 15 hours and 7 minutes. Its period of extreme brightness, equal to a star of the second magnitude, lasts about a fortnight; it is steadily on the decrease for about three months, remains in a state completely invisible to the naked eye for about five months, and spends the remainder of its period in returning towards its maximum. It is not perfectly regular in the degree of its brightness during successive revolutions, and it is supposed that the irregularities may be made regular by assuming a more extensive cycle. The star Algol, in the constellation Perseus, is another example, but remarkable for the shortness of its period, the whole course of its fluctuations being accomplished in about 2 days and 21 hours. It varies in intensity from the second magnitude to the fourth. The greater part of the period is spent in the maximum of brightness; the diminished lustre lasts only for a quarter of an hour, and the periods of waxing and waning are each about three hours and a-half. Forty or fifty other stars of the same class have been determined with more or less precision.

This phenomenon of regular increase and decrease, mysterious as it is, helps to render less astonishing the recurrence of temporary stars, by suggesting in their case some principle of periodicity or regularity. On the same ground they help to prepare us for learning that there are *stars amissing* which had been counted on, and entered in catalogues, as regular tenants of the upper sphere.

The principle of periodicity occurs so universally in the appearances of astronomy, that we are naturally led to put this interpretation upon the most singular fluctuations and reverses; or at least to try how such an interpretation will suit the facts, before we adopt the explanation suggested by our more narrow human experience of the existence of a cycle of rise, progress, and decay. But this last explanation, although less required in the heavens than in the earth, must not be entirely excluded from celestial things. Within our own planetary system there are indubitable examples of decay among the minor orbs—as, for example, the comets, which seem liable to a diminution of their splendour, as well as a contraction in the amplitude of their orbits. That the star of our system, the great sun himself, remains always of the same unvarying lustre and warmth, we have no kind of assurance whatsoever; indeed it seems difficult to imagine how such a chaotic boiling surface as his should be always precisely of one uniform intensity. Moreover, the geological changes that have come over the earth are hardly reconcilable with the unbroken continuance of one steady temperature either derived from the sun or stored up in the interior. Even the fluctuations of weather from year to year, and the great differences in the mean temperature of localities, are difficult to account for if the total warmth poured upon the earth be rigorously the same in all years. It is true that within the historical period of the human race no changes of climate have occurred so very extensive as to compel us to resort to a change in the earth's own temperature, or in the supply of solar heat, as the only means of explanation; but there are sufficient difficulties to satisfy us that this explanation may yet require to be called in. And although, in the short period embraced by the records of civilised men, no great comical changes are distinctly traceable, the accumulation of a slight increase

or decrease of solar power over geological ages might serve to produce the greatest revolutions in the character of the exposed surface of our globe.

Without resorting to the extreme supposition of an actual diminution and increase of the starry blaze in the individuals thus found to vary in their degree of light (which would oblige us to imagine the total extinction of some, and the sudden kindling of the black embers of others), a means of accounting for some of the periodical stars has been sought in the revolution of dark bodies round them, causing a partial or total eclipse when coming between us and the illuminated centre of their masses. A very large planet might suffice to produce a sensible diminution of the light of a primary, this being almost the only mode whereby the planets of remote luminaries would indicate their existence. But for this purpose the planets would require to be on an immensely grander scale than any in our system; for these all put together in one, or all appearing on the face of the sun at the same instant, would not, by their united eclipse, make any sensible difference in his brightness. As, however, we have seen reason already, and will immediately see more, for not restricting the scale of the sidereal systems to the limits of our own, no improbability is derived from the smallness of our planetary eclipses against the existence of larger ones in other members of the varied universe.

The existence of what are called *Binary Stars* is a proof of the copiousness and variety of the starry arrangements. By these are meant stars whose closeness depends not upon the accidental circumstance of their lying in nearly the same direction in the heavens, so as to appear beside one another in the optical field of view, but upon actual proximity, and mutual action and reaction, made conspicuous by the one performing a revolution about the other. There are of course many stars optically double, or standing as very close neighbours, without having the smallest mutual connection; one of the two being, for aught we know, situated far beyond the other in the immeasurable remoteness of space. But the number of instances of stars standing very close together having turned out to be much greater than could arise by the mere accident of their scattering, astronomers have of late been led to suspect actual relationships between the couples, and have been able to trace this relationship in the fact of mutual revolution. They were thus induced to recognise binary systems, and even triple, quadruple, and higher groups, as entering into the scheme of the stellar orbs. Our solar system stands to us as the great example of what is probably the prevailing type in the heavens—namely, a single central luminary with its train of non-luminous dependants; but we are called upon now to admit into our conceptions the case of two suns constituting one system between them, and communicating their united beams to the planetary masses that may happen to circulate about one or both.

Great progress has been made of late years in extending the number of observed binary systems, in ascertaining their periods, and even the figure of their orbits. Thousands of them have now been placed on record, and in a great number of cases the periods have been calculated, and have been found to be extremely unequal. Dr Nichol gives from Mäedler the follow-

ing synoptical view of what he considers established within certain limits of accuracy as to numbers and periods :—

<i>Nos. of Stars.</i>			<i>Periods.</i>	
30	from	100	to	500 years.
80	...	500	...	1000 ...
162	...	1000	...	2000 ...
50	...	2000	...	3000 ...
33	...	3000	...	4000 ...
16	...	4000	...	5000 ...
27	...	above	5000	...

In the individual enumeration of the double stars, one couple is stated, in the constellation Andromeda, as having a period of 10,376 years; another is put down at 7659 years; and a third, *Polaris*, or the pole-star, at 6069 years.

The same observations that determine the rate of movement of the revolving stars also give the figure of the orbit, which seems to possess the elliptic character prevailing in our own system. This inevitably carries us to the admission of the existence of a law of attractive force exactly the same as gravity, and therefore the probable extension of the force of gravitation to the fixed stars. Indeed the extension is inevitable, unless we are to suppose that two stars that gravitate towards one another are perfectly neutral to other remote stars; a most unlikely, not to say an affected supposition, inconsistent with the composition of those grand aggregates that constitute the galaxies of the firmament at large.

It happens that one or two of the stars whose distances have been measured are double stars: in such cases, therefore, it is possible to calculate the actual interval between the two revolving suns. Thus it is found that the interval between the two members of the system 61 Cygni, is about the forty-fourth part of their distance from us, or more than a billion of miles; which would give an orbit far larger than the orbit of Neptune. Moreover, supposing their revolution to be conducted under the same force of gravitation as we experience, it is possible to calculate the masses of the luminaries; and the result makes them, taken both together, equal to about one-third of our sun. Hence if their density were about the same as the solar density, they would be to this extent smaller than our luminary.

Having thus discovered one class of changes and movements amidst the apparent stillness of the stars, we are prepared to find any others that circumstances may indicate to us. If attractions prevail among them causing mutual revolutions, these attractions may have the further effect of bringing about a mutual approach of remoter bodies. In other words, the stars may have what is called *proper motions*, or may be actually progressing from one quarter of the heavens to another. Cases have been decisively ascertained of stars changing their places among the other stars by a slow and gradual motion. Three of the most conspicuous of them, *Sirius*, *Arcturus*, and *Aldebaran*, have been proved, by the comparison of modern with some ancient observations, to have experienced a change of place to the southward to the extent of more than the breadth of the moon in all the three. And during the period of accurate modern measure-

nents, other instances have been ascertained of steady change of place by the effect of proper motion.

The question of the *proper motion of the sun* was started by Sir William Herschel, who was led to it by observing a certain tendency in the apparent motions of the stars, which would be best accounted for as an effect of perspective arising out of a real motion in the sun. If the solar system were really progressing through the heavens in one definite direction, a necessary consequence would be, that the stars would seem to spread out ahead, and to close in behind, or in the quarter that was becoming more and more distant. Accordingly, the supposed actual occurrence of such an effect has been taken as the proof of the movement in question; and an accurate inquiry into the precise direction of the starry crowding and spreading respectively has decided that the course of the motion is towards the constellation Hercules in the northern hemisphere of the stars.

If the distances of the stars thus observed to draw together around Hercules, and to open up in the opposite point of the heavens, were precisely known, the velocity of the sun's proper motion could be easily ascertained. But the measurement of distances has not progressed far enough to include the individuals requisite for such a purpose. Acting, however, on the most likely presumption that can be made, it is computed that the actual motion is upwards of 400,000 miles a day, or a little greater than one-fourth of the pace of the earth in its orbit about the sun. In the course of ages, a movement of this extent will carry us into other regions of starry space, and may possibly alter to a considerable degree the aspect of the heavens, and the influence that is exerted on our system by distant bodies.

It is as yet premature to attempt to decide whether this movement is straight, or whether it is curved around some great centre of motion, according to the fashion of the revolutions in the interior of the system. Attempts are, however, made to determine such a centre of motion, which might be supposed to be the common centre of the galaxy, or of some wide-ranging portion of it, whose mutual attractions maintain a series of orbital motions around the centre of gravity of the whole. If any progress come to be made in showing that there is such a movement of deflection in the sun's path, and a respect to some great centre of revolution, the existence of *universal gravitation*, in the full sense of the word, will be put beyond the possibility of question or dispute.

The Nebulæ.

These are the bodies that have been usually distinguished from the stars, as being of a hazy or cloudy aspect, resembling patches of faint light, but with the utmost variety of figure and aspect. They were minutely investigated for the first time by Sir William Herschel, who divided them, according to their appearances, under the following heads:—

1st, Clusters of stars in which the stars are clearly distinguishable; these being again divided into globular and irregular clusters:

2^d, Resolvable nebulae, or such as excite a suspicion that they consist of stars, and which any increase of the optical power of the telescope may be expected to resolve into distinct stars:

3^d, Nebulae, properly so called, in which there is no appearance what-

ever of stars; which again have been subdivided into subordinate uses, according to their brightness and size:

'4th, Planetary nebulae:

'5th, Stellar nebulae: and

'6th, Nebulous stars.

'The great power of his telescopes disclosed the existence of an immense number of these objects before unknown, and showed them to be distributed over the heavens, not by any means uniformly, but with a marked preference to a certain district extending over the northern pole of the galactic circle, and occupying the constellations Leo, Leo Minor, the body, tail, and hind-legs of Ursa Major, Canes Venatici, Coma Berenices, the preceding leg of Bootes, and the head, wings, and shoulder of Virgo. In this region, occupying about one-eighth of the whole surface of the sphere, one-third of the entire nebulous contents of the heavens are congregated. On the other hand, they are very sparingly scattered over the constellations Aries, Taurus, the head and shoulders of Orion, Auriga, Perseus, Camelopardalus, Draco, Hercules, the northern part of Serpentarius, the tail of Serpens, that of Aquila, and the whole of Lyra. The hours 3, 4, 5, and 16, 17, 18 of right ascension are singularly poor; and on the other hand the hours 10, 11, and 12 (but especially 12) extraordinarily rich in these objects. In the southern hemisphere a much greater uniformity of distribution prevails, and with the exception of two very remarkable centres of accumulation, called the Magellanic clouds, there is no very decided tendency to their assemblage in any particular region.*

The *clusters of stars* which stand first in Sir William Herschel's classification are either globular or irregular. The globular clusters are usually condensed towards the centre, an effect that would arise by the mere consequence of perspective, supposing them to be a globe of stars; but it is believed that the increase of density and of luminosity towards the centre is greater than what could be accounted for by the greater depth of the mass in that region. Hence the idea has been entertained that they are actually masses more crowded at the centre than at the circumference, as if by the presence of some particular energy or mode of attractive force that determines such an aggregation. They are not very accurately spherical; not only do they deviate from the general figure, but they send out occasionally small filaments or threads, as if portions of them had broken loose from the clustering bond. There are also cases where the concentration proceeds as if by starts, making a succession of annular masses, each enclosing another more dense than itself.

The irregular clusters have less of central condensation, and less of definiteness of outline, so much so, that Sir John Herschel considers that it may be a question whether they are definite or distinct groups in the same sense as the others, or are merely richer parts of the galaxy of the Milky Way, where the greater proportion of them are situated.

The *Resolvable Nebulae* of Herschel's classification can be considered only as a class identical in nature with the foregoing, but removed by distance

* Sir John Herschel's *Outlines of Astronomy*, p. 595.

from a clear perception of their form. The name implies that they have the hazy disk, as distinguished from the starry sparkle, with this farther peculiarity, that by employing a sufficient magnifying power, they may be converted into clusters of distinguishable stars. In fact the globular clusters of the previous class have the same hazy appearance under inferior telescopes; and the presumption therefore is, that the distinction between the two kinds is relative only to our sight. Nothing is more striking in the whole range of this great subject than the differences of appearance that these bodies put on when viewed by telescopes of unequal power. Dr Nichol has presented in his splendid work on the 'Architecture of the Heavens,' recently published, illustrations of this disparity; and from such examples we are taught the necessity of being extremely cautious in judging of the actual form and constitution of these bodies from their appearance, unless this be confirmed by the application of successive degrees of telescopic penetration.

Some of the nebulae believed to belong to the resolvable class resisted the highest power that could be brought to bear upon them till lately; but Lord Rosse's instruments at last succeeded in proving them to belong to the clustering groups, and to be among the most sublime and magnificent of the starry aggregates.

There is now no hesitation felt in considering these clusters of stars as distinct galaxies or firmaments with a mutual relation, not merely of neighbourhood, but of attractive forces and balanced movements. Living, as we do, in the galaxy whose border is the Milky Way, we are supposed to see through it, and far away into other spaces where galaxies, similarly built up, lie scattered, each of them being to its own tenants a preponderating firmament of bright stars, through which distant and dwindled galaxies may peep through as nebulous patches, difficult to be conceived as rivalling or surpassing their own galaxy with all its splendours. There may exist among these remote groups clusters far more closely packed than ours, and where the starry night has an intensity of luminous brightness such as we have no experience of in the clearest skies. In fact our solar centre may be said to be enormously removed from its fellow-luminaries, causing us to be deprived of much of the glories of their companionship; and examples may exist of far greater proximity to, and of a greater share of benefit from, the abundance of starry illumination existing in the celestial spaces.

Between Herschel's two first classes and his third, *nebulae, properly so called*, he conceived a great gulf to exist, or a total distinction in kind, very different from that distinction in degree between the clusters of stars and the resolvable nebulae. He considered that there were *Irresolvable Nebulae*, or masses that never would be shown to consist of stars, because they were not really composed of such, but were actually what they seemed to be—a diffused gaseous substance like flame, and were possibly in the course of being condensed into starry points. The other nebulae being entire galaxies of millions of suns, these would be nothing more than the diffused vapour of a single uncondensed luminary, or an early stage in the history of a star. Sir William Herschel grounded this prodigious distinction upon what he considered a characteristic difference in appearance between them and

the resolvable nebulae; and subsequent observers acquiesced in, and even confirmed, the existence of such a well-marked contrast. The appearance of these nebulae, and the 'nebular hypothesis' of the formation of suns and systems which they appeared to support, have of late years been expounded with every variety of illustration by Professor Nichol, who nevertheless, with an honourable candour, was the first to make publicly known the great discovery that for ever dissipated the whole fabric of the speculation. Of all the irresolvable nebulae, or the nebulae properly so called; the one situated in the middle of the Sword of Orion seemed to the supporters of the hypothesis the most characteristic of the class, and the most strongly-contrasted with the resolvable nebulousity. In fact Dr Nichol himself declared that in his opinion the hypothesis must stand or fall by this nebula, and accordingly he waited with intense interest the result of Lord Rosse's examination of it by means of his new telescopes. In a letter dated the 19th of March 1846, the resolution of the mass was actually announced; and there was thus an end of Herschel's third-class nebulae, and of all the dreams of star history that had been grounded upon them. There are 'no nebulae properly so called.' Instead of the early stage of uncondensed suns, we must lay our account with a new order of galaxies, even more vast and wonderful than those formerly revealed. The difficulty experienced in their identification is to be considered only as a proof of their immeasurable remoteness, combined with a force of aggregate splendour that can make itself known as if from the very limits of the created universe. Never did any created object experience a greater reversal of estimation than these nebulae—promoted in one day from infant suns to first-rank galaxies.

The nebula of Orion, says Professor Nichol, 'judged by the only criticism yet applicable, is perhaps so remote, that its light does not reach us in less than 50,000 or 60,000 years.' Considering at the same time the large apparent space it occupies in the heavens, its extent must be truly stupendous.

The *Planetary Nebulae*—Herschel's fourth class—belong to a species remarkable by presenting a contrast to the clustering nebulae. They are hollow and annular, instead of showing a tendency to centralisation. Their appearance, on which their name depends, is a round or slightly-oval disk, sometimes with a sharp border, and in other cases with a haze or softening at the edge. Their aspect is either a uniform faint haze, or a 'mottled' or 'curdled' texture. The telescopes of Lord Rosse have been the means of penetrating the true character of those singular objects, having shown, according to Dr Nichol, 'that in every instance examined, save one, the planetary nebulae are nebulae with hollow centres. . . . They are comparatively rare objects, not above four or five-and-twenty having been hitherto observed, and of these nearly three-fourths are situated in the southern hemisphere.'

These nebulae would appear to indicate a tendency of a totally different character from the clustering power, but neither the one nor the other of the two forms can be with certainty reduced to any of the dynamical laws known to us, although they are quite compatible with the existence of such laws. It seems probable, from some of the appearances, that our galaxy has

a nearer resemblance to the annular than to the centralised galaxies, our sun being situated in the thin spaces of the interior, and looking out all round upon the massive arch projected in the sky, and constituting the Milky Way. At all events, we may safely presume that interior condensation is not the character of our galaxy.

Double Nebulæ are of not unfrequent occurrence as a parallel to the double stars. In most cases they are of the class of globular clusters, and their doubleness consists in presenting two distinct centres of concentration. Among Herschel's irresolvable nebulæ there were cases of apparent concentration to two or more points, which would have led to the formation of double or triple suns, if his notion had corresponded with the fact.

Considering the clustering and the ring-shaped nebulæ as two classes, with physical constitutions of a distinct kind, we are presented with a third class differing from either, called, from their appearance, the *Spiral Nebulæ*, and it would appear that the spiral figure belongs to an extensive range of galaxies. Some of them show this form in its directest aspect, and afford so convincing a proof of the existence of such a singular style of aggregation, that astronomers have been led to recognise it in more oblique positions. Of course if the spiral character prevails among a number of them, there will be cases where it turns other sides to us than the one where the evolution is distinctly apparent, and we may be so situated in some instances as to be unable to ascertain the existence of the shape at all, as in the case of an edge view. If, however, the spiral takes on the cork-screw shape, a characteristic form would be presented, consisting of alternating bright and dark streaks; and such a form is actually conceived as belonging to one remarkable nebula, known as the great nebula in Andromeda, which is so prominent as to be visible to the naked eye.

It is vain at the present stage of such inquiries to imagine the nature of the mutual action or bond of attractive and repulsive energy prevailing in such strange aggregates. They only serve in the meantime to suggest more vividly the presence of some common influence giving a unity of shape to the mass, and in all probability impressing a slow change on its structure, either in the way of inward condensation or of outward diffusion and expansion, it being scarcely possible to tell which. But by a shape of so unusual a character as this spiral one, all our ideas of stability are completely confounded.

The great nebula of Orion, which has been already dwelt upon as the turning-point of the nebular hypothesis, is reckoned by Sir John Herschel as one of a class of nebulæ rising above all the others in complexity and extent. They are irregular and capricious in their forms, and have very little similarity of figure or aspect. They are for the most part situated in or near the Milky Way, the nebula of Orion being the farthest removed from any of them.

This connection with the Milky Way suggests the idea that they may possibly be continuations or outlying portions of the galaxy of our immediate firmament. We can hardly be said to possess any means of judging of the contour or outline of the edge of the stratum of the Milky Way, nor can we tell how it may prolong itself by filaments in some directions, or connect itself with remote masses and clusters. We have already had occa-

sion to allude to patches of it, irresolvable to the telescope, and therefore in all probability consisting of masses or clusters at a very great distance from us compared with the other portions. Accordingly, when we come to look at the nebulae scattered over or near the milky zone, it is not unnatural to suppose them as joined on to, or continuous with, the general galaxy, and forming irregular outlying clusters, but within such distances as to constitute them a part of this great and wide-ranging aggregate.

The nebula of Orion, although now in part resolved, consists of portions that still continue irresolvable; but it is now evident that this is owing solely to the deficiency of telescopic power. In like manner the other nebulae of this class have the same mixture of resolvable and irresolvable clusters, showing some extraordinary inequality either in the distance or in the constitution of the different portions.

After enumerating and describing several individuals of this remarkable class, Sir John Herschel gives an interesting account of two cloudy masses, conspicuously visible to the naked eye in the southern hemisphere, and denominated the Magellanic Clouds, or the nubeculae (major and minor). They are, generally speaking, round, or somewhat oval; and the larger, which deviates most from the circular form, exhibits the appearance of an axis of light, very ill defined, and by no means strongly distinguished from the general mass, which seems to open out at its extremities into somewhat oval sweeps, constituting the preceding and following portions of its circumference. A small patch, visibly brighter than the general light around, in its following part indicates to the naked eye the situation of a remarkable nebula (No. 30. Doradus of Bode's Catalogue). The greater nubecula is situated between the meridians of $4^{\text{h}} 40^{\text{m}}$ and $6^{\text{h}} 0^{\text{m}}$, and the parallels of 156° and 162° of north polar distance, and occupies an area of about 42 square degrees. The lesser, between the meridians $0^{\text{h}} 28^{\text{m}}$ and $1^{\text{h}} 15^{\text{m}}$, and the parallels of 162° and 165° north polar distance, covers about 10 square degrees. Their degree of brightness may be judged of from the effect of strong moonlight, which totally obliterates the lesser, but not quite the greater.

When examined through powerful telescopes, the constitution of the nubeculae, and especially of the nubecula major, is found to be of astonishing complexity. The general ground of both consists of large tracts and patches of nebulosity in every stage of resolution, from light, irresolvable with eighteen inches of reflecting aperture, up to perfectly-separated stars like the Milky Way; and clustering groups sufficiently insulated and condensed to come under the designation of irregular, and in some cases pretty rich clusters. But besides those, there are also nebulae in abundance, both regular and irregular; globular clusters in every state of condensation; and objects of a nebulous character quite peculiar, and which have no analogue in any other region of the heavens. Such is the concentration of these objects, that in the area occupied by the nubecula major not fewer than 278 nebulae and clusters have been enumerated, besides fifty or sixty outliers, which (considering the general barrenness in such objects of the immediate neighbourhood) ought certainly to be reckoned as its appendages, being about $6\frac{1}{2}$ per square degree, which very far exceeds the average of any other, even the most crowded parts of the nebulous heavens. In the nubecula minor, the concentration of such objects is less, though still very

striking, thirty-seven having been observed within its area, and six adjacent, but outlying. The nubeculæ then combine, each within its own area, characters which in the rest of the heavens are no less strikingly separated—namely, those of the galactic and the nebular system. Globular clusters (except in one region of small extent) and nebulae of regular elliptic forms are comparatively rare in the Milky Way, and are found congregated in a part of the heavens the most remote possible from that circle; whereas, in the nubeculæ, they are indiscriminately mixed with the general starry ground, and with irregular though small nebulae.*

The coexistence of visible stars and irresolvable nebulousity in the same mass indicates an extraordinary contrast of structure—a combination of a few objects of immense magnitude with a boundless host of smaller objects. If there be any unlikelihood in the supposition that the different parts of the object are almost infinitely removed from one another, or that the nebulous portions are many, many times farther off than the distinguishable stars, we have no alternative but to suppose a vast disparity in the sizes of the objects that compose the picture. Sir John Herschel considers that, taking both nubeculæ together, the improbability of a sufficient inequality of distance to make all the difference in appearance between stars of the seventh and eighth magnitude and irresolvable nebulae is very great indeed, and that the supposition is scarcely admissible at all. The consequence is, as has been stated, that we are driven to admit a superiority in the size or brilliancy of some objects as compared with others, such as imagination can hardly dare to conceive. This circumstance is calculated to throw uncertainty upon many of the speculations regarding the heavens, inasmuch as we are frequently led to assume something like a tolerable equality of size in the different bodies, or at least to rebut the probability of some of them being tens of thousands of times larger than others. If we were to consider minuteness and irresolvable nebulousity as no criterion of distance, a vast deal of the hypothesis of the celestial framework would be completely undermined. At all events, we are led by the consideration of such cases to learn a lesson of caution, and not to lean too strongly upon views that are grounded partly on observation and partly on unproved assumptions.

In our first allusion to the probable shape of the great galaxy of the Milky Way, we cited the comparison of a millstone, with the edge laid open in one part, so as to make a double rim for a certain portion of the circumference. But after the examination in detail that it has been subjected to, and after the disclosures that have been made of the singular forms of other galaxies, even where there is a general compactness in structure, we are compelled to admit that its contour may be something very far from circular. It may be oval or elongated, with strings or filaments spreading far into space, or running into clusters that are all but disconnected from the main body.

In considering the planetary motions within the bounds of our solar system, astronomers have been much impressed with the stability of those motions; all their fluctuations reach a limit, and then proceed backwards in the opposite direction, finding also a limit on that side: no deviation from the regular track is continuous or perpetual. It is natural for us to look

* *Outlines of Astronomy*, p. 613.

for something of the same stability in the higher order of systems, and to speculate on the methods of balancing and mutual compensation that may exist for sustaining the permanency of their structures. But, on the other hand, we must not be too much wedded to the notion of an everlasting equilibrium or *status quo* of one given kind. There may also exist in the great scale of the universe, what we experience in the small scale of our own little world, a principle of progression and change, of development and decay; and what we view at present may be merely the transition from a past to a future unknown. Schemes and arrangements that are incapable of maintaining themselves may exist around us, and constitute the link in some vast chain of being that would be grand and astonishing in the highest degree if we were permitted to trace it from first to last.

The elder Herschel was very strongly impressed with the notion of the transitory character of many of the great celestial aggregates, while his illustrious descendant seems disposed to dwell more exclusively upon the ways and means of insuring permanence among the existing arrangements. The gradual breaking up of the Milky Way in separate clusters, or smaller aggregates, was confidently anticipated by the father. 'And so,' he says, 'we may be certain that the stars in the Milky Way will be gradually compressed through successive stages of accumulation, until they come up to what may be called the ripening period of the globular cluster and total isolation; from which it is evident that the Milky Way must be forcibly broken up, and cease to be a stratum of scattered stars. . . . We may also draw an important additional conclusion from the gradual dissolution of the Milky Way; for the state into which the incessant action of the clustering power has brought it is a kind of chronometer that may be used to measure the time of its present and past existence; and although we do not know the rate and the going of this mysterious chronometer, it is nevertheless certain that since a breaking up of the parts of the Milky Way affords a proof that it cannot last for ever, it equally bears witness that its past duration cannot be admitted to be infinite.'*

The application of the principle of breaking up and isolation would be more conformable to the apparent structure of many of the nebulous firmaments than any doctrine of equilibrium that our mechanical science enables us to propound. The great spiral and scroll nebulae might be supposed to be the systematic breaking up of more symmetrical aggregates of long anterior date, if it be admissible for us to make any supposition at all in relation to things so vastly above our comprehension. So the Magellanic Clouds may 'exhibit a multitude of stars and clusters formerly belonging to our system in the very act of becoming isolated.' But be this as it may, the idea of some kind of progression and advancement, either towards maturity or on the road to decay, is suggested by a vast range of experience within the sphere of our immediate knowledge. The geological changes on the earth offer the nearest comparison, in point of scale and magnitude, to the march of the celestial systems; and in them a past, a present, and future, are all distinctly conceivable and demonstrable. Our own existence as a race of animated beings is a fact in the progress of the globe, an epoch in its history; for ages previous, the earth's crust was preparing itself for

* Nichol's *Architecture of the Heavens*, p. 238.

sustaining our tread, and what its future destinies may be after we shall have disappeared, it is not for us to determine. So a history and a chain of successive phases may belong to the collective galaxies of the universe, as well as to their individual members, which it is not altogether in vain to contemplate, inasmuch as, after what has been already achieved, the evidence of it may lie within the range of positive observation.

Conceiving to ourselves, therefore, the infinite host of stars as scattered over space, not indiscriminately and at random, but according to regular and distinguishable aggregates, we are enabled in some degree to regulate the wanderings of thought over the depths of the outspread creation. Instead of the heavens appearing to our sense as a glittering spectacle, or a mere gorgeous illumination of unmeaning display, it now opens itself up to our reasoning and imagining faculties as a great and immense array of orb on orb, which we can resolve into systems, and divide into spheres enclosing one another at successive distances. We know that this apparently uniform face of irregular and unequal lights is an illusion, and we can give to some of them with certainty, and to others with probability, their exact place and order of remoteness in the depths of space. Fixing the attention for a moment on one, and casting aside the glance upon a second, we are aware of the necessity of stretching the imagination to conceive of a distance twice, thrice, or twenty times more remote, and in this way to extend our regards through star vistas, terminating after a long series, and fading into the blackness of absolute night and starless vacuity. Numberless as are the starry orbs, and densely as they are congregated and distributed in the infinite void, there yet remain blanks of unpeopled space even more gigantic than the enclosure of the mightiest galaxies; expanses of solitude and gloom, desert and trackless, dreary and solemn to the dwellers on their borders. The intervals between star and star within the same galaxy are such as we have indicated from the measurements of recent years, and are on a scale more than enough for the magnitudes of suns and the areas of revolving systems. The dignity conferred by distance and ample domain is granted to each orb among his brother orbs, and a whole galaxy is constituted on this wide-spreading arrangement. Yet vast as these interior distances are, it is possible to satisfy ourselves that there exists beyond each galaxy an interval of vacuity that reduces them to finite, not to say diminutive interstices, and stretches away on a far higher scale of extension, leaving a broad vacuity to separate firmament from firmament. As the system of the galaxy surpasses the planetary sphere, so the system of the universe must be conceived as surpassing the individual galaxy. Enough is offered to our contemplation of what actually appears to render it needless to stretch still farther our thoughts to what exists beyond the limits of our farthest glance. Unless a ray of light is able to pass from shore to shore of the star continent of immensity, no mortal can ever be permitted to descry the whole field of creation; and they that find the galaxies of the seen firmament too narrow for their imagination, may pass beyond them to the wider spheres of the all-encompassing infinite

When directing our thoughts upon the star fields as now laid open to

our contemplation, we shall find it important to take a good position, as it were, or to stand at a convenient point of view. If we desire to gain a large prospect, we betake ourselves to an elevated summit; but to enjoy a picturesque spot, we require to keep the low ground. It is not enough that a great scene should be provided for us; we must also be taught to survey it aright. So it is with the stars; there are ways of viewing them more advantageous than others for obtaining the full effect. •

There are two positions that we may assume in this great contemplation. In the first place, standing as we do on an orb shot through space, and whirling as it goes, we may suppose it a transparent globe, and conceive the picture of the entire starry concave, upper and under, as if the whole could be seen at once. This transition from the seen half to the imagined whole, would enable us much better to appreciate the grandeur of the celestial scene. The entire zodiac, with the planets scattered here and there, as they perform their accustomed courses, would be present at once to our minds. In one part of the circle would be the sun, in another the moon; and in tracking the entire circumference, we should find, one after another, every one of the planetary family. There would be a great accession to the dignity of our conceptions if we could rise above the delusion of appearances, and fancy ourselves riding on a little ball in the midst of a vast concave encircling us on all sides, and studded with distant luminaries. Our annual excursion takes us into different situations, and varies the upper scene that we look out upon, as well as the hidden scene that imagination must supply; but there is a stern endurance and fixity of aspect in the total expanse where lie scattered the objects extraneous to our own system. So the Milky Way is revealed to us in its full grandeur only on condition that we can imagine its entire circle over-arching and under-arching our narrow horizon. Spurning away, as it were, the opaque ground from beneath our feet, and standing in thought in the unobstructed void, we see ourselves encompassed round and round by this star band, with its countless worlds; and in this position we can indulge with more freedom in the conception that has been insisted on of the galaxy where the solar system, and we its inhabitants, dwell in distant communion with other suns and systems. We can coolly contemplate the varied aspect of the encircling rim, and consider the likelihood of our own position, as centric or eccentric; near one side, or immersed in the middle of the galaxy. In short, we ought to maintain strenuously the exercise of keeping in our mind's eye the nether sphere or ground-floor of the heavens, to blend in one continuous whole with its over-arching roof.

But there is a second position that may be taken of a still more elevated and arduous nature. Quitting the earth altogether, and with it the notions of up and down that gravity engenders, we may take wing through space, and visit star after star, enjoying the prospect that each affords to the instructed imagination—in a manner similar to the flight of Milton among the worlds of mythical fiction in a universe of his own contriving. Based on the revelations of astronomy, a far higher and grander flight lies open to the Milton who is to come.

Perambulating our own galaxy, and viewing it from every side, adventurous thought may dart forth in search of other galaxies, at any one of which our own shall dwindle away into a cluster or nebula where our sun

must be lost in a starry crowd that cannot be numbered ; a new heaven will then have spread itself out around us, a fit environment to the new earth where the foot has planted itself. In such adventurings, space, distance, stars, and firmaments, the features of the large scale of creation, fill up our regards : we are prohibited from any attempt at the minute inspection of individual orbs. The adventurer whose course we are imagining is expected to confine himself strictly within the elements disclosed by the eye and the reason of the astronomer.

It is a very common vice of writers of travels, in their descriptions of places and scenes, to dictate the exact feelings that are to rise up in the minds of their readers on the contemplation of such places or scenes ; and this mode of dictation sometimes attends scientific expositions of the world. It is more becoming in the scientific teacher to confine himself to his science, to deliver over to our minds the exact picture of any department of creation as determined by him, and leave to each individual's own susceptibilities the extraneous effect it may produce, whether of admiration or fascination, of curiosity, poetic emotion, or religious awe. The objects of astronomy are powerfully calculated to stir the human breast, and awaken the gravest thoughts and reflections ; but it is not for every expounder of its mere scientific conclusions to prescribe the exact emotions that are the harmonious and befitting response to the reception of its doctrines.

THE WHITE SWALLOW

AN INDIAN TALE.

OF all the evil results of man's passions and resentments, of all the errors to which humanity is liable, war is one of the most hideous in its consequences, the most fearful in its details, and the most futile in its excuses. Concealed, hidden, wreathed and garlanded, glorified and applauded, excused and defended as it may be, it is still nothing but a savage butchery, in nine cases out of ten unjustified even by a show of respectable motives. Defensive war is, after all, the only form of an appeal to arms which can be supported by sound reason, common sense, and true religion. Men of otherwise good and proper feeling, viewing the system with distorted vision, are sometimes dazzled by its tinsel splendour; but if they would inquire dispassionately into the causes which have brought about the greatest feats in arms—into the reasons which have provoked some hundred thousand men to cut, and hack, and shoot at each other by the hour, they would find that personal ambition has been the original impulse, and that the true subject of dispute might have been settled in a very different way. It is only prejudice and education that make the same man admire a pitched battle, and loathe the September massacres of the French Revolution. The one butchery is done to the sound of music, in brilliant uniform, and under high-sounding names; the other to the sound of human groans, in shirt sleeves, and under the pretence of patriotism; but in both instances men slew individuals to whom they could have no personal hatred, and from no other motive but because they were paid for the work.

If the wars of savage life have less of a mercenary character than the soldier-system of civilised lands, they have features which more than counterbalance this advantage. They are fierce and terrible in their duration, horrible in their details, and replete with episodes, which make them still more hideous than the struggles of better-educated nations. A popular transatlantic romancist has rendered their modes of operation familiar to the great mass of readers; and I have no need, therefore, to dwell on their minute features, which are sufficiently unpleasant to be avoided as a subject of study. My present narrative is, however, of war; but illustrative rather of its moral results than its direct physical

evils. Savage life has few, if any, advantages over civilisation; and what is good in the former state, is spoiled by its feuds and forays, which are of course the more frequent and lasting in proportion as men are less humanised than their fellows. Its requisites for comfort and happiness are chiefly energy, skill in the chase, and courage to brave and encounter difficulties; such qualities being necessary to obtain food and clothing; but the same talents which make a good hunter make a good warrior, and ambition, avarice, the desire to shine in the field of glory, and all the other passions of men, too often pervert the one into the other.

I.—THE DOG-RIBBED INDIANS.

Far away to the west, and in a very high northern latitude, dwelt, towards the latter end of the last century, a small tribe of Indians. Their numbers were few, their characters simple and unwarlike. Not being celebrated in arms, they had, while residing farther to the south, been so often a prey to their fiercer neighbours, that they had gradually retreated northwards, in the hope of escaping from the forays of their enemies. Matonaza, a young chief of twenty summers only, commanded the reduced tribe, and had pitched his wigwam near the waters of a lake. A renowned and indefatigable hunter, full of energy and perseverance, he owed his power as much to his individual merits as to the renown of his father; and now that seven-and-twenty men alone remained of all his race, and that misfortune and the disasters of war had driven them to regions less productive in game than their former residence, his sway was unbounded. Matonaza was as yet without a wife; but the most lovely girl of his tribe, the White Swallow, was to be his when his twenty-first summer was concluded, when she herself would attain the age of sixteen.

In general the Dog-ribbed Indians at that date—it was about 1770*—had had little communication with the white man. Their knives were still of bone and flint, their hatchets of horn, their arrow-heads of slate, while the beaver's tooth was the principal material of their working tools; but Matonaza himself had travelled, and had visited Prince of Wales Fort, where he had been well received by Mr Moses Northon, the governor, himself an Indian, educated in England. Admitted into the intimacy of this person, Matonaza had acquired from him considerable knowledge without contracting any of the vices which disgraced the career of the civilised Red Man. He had learned to feel some of the humanising influences of civilisation, and held woman in a superior light to his brethren, who pronounce the condemnation of savage life by making the female part of the creation little better than beasts of burthen. He had hoped for great advantage to his tribe from trade with the Pale Faces; but the enmity of the Athapasow Indians had checked all his aspirations, and he had been compelled to make a long and hasty retreat towards the north, to save the remnant of his little band from annihilation. In all probability it is to similar warlike persecutions that the higher northern regions owe their having been peopled by the race whence are descended the Esquimaux.

* The historical facts of this narrative are to be found in Samuel Hearne's Travels.

The exigencies of the chase and the fishery, more than any inherent taste for the picturesque, had fixed Matonaza in a lovely spot. The wigwams of the young chief and his party were situated on an elevation commanding a view of a large lake, whose borders, round which grew the larch, the pine, and the poplar, furnished them with firing, tent-poles, and arms. Beyond lay lofty snow-clad hills, on which rested eternal frosts. Above the tents to the right and to the north fell a vast cataract, which never froze even in the coldest winter, having always a clear expanse at its foot for fishing even in the dead of the season. At the foot of the neighbouring hills the hunters found the deer, the elk, and the buffalo, while the women attended to the nets and lines in the lake. In the fitting months there were plenty of wild-fowl, and altogether, the tribe, though exiled from the warmer fields of the south, had no great cause of complaint. Their tents sheltered them well, they had plenty of food, ample occupation, and for a long time peace and contentment. Far away from the conflict of arms, the warriors threw all their energy into hunting; and, with the habit of scalping and killing their fellows, threw off much of their rudeness. The women felt the change sensibly: their husbands grew tenderer; much of the energy wasted on murderous propensities found vent in the domestic sentiments. The fact that each man had only one wife, and some none—their victorious adversaries having not only killed their best men, but carried off their marriageable women—added to their superiority of character. Polygamy among these Indians, as everywhere else, brutalises the men, and debases the women; and in those tribes where rich men had as many as eight wives, the fair sex sank to the level of mere slaves. But on the borders of the White Lake they had no superabundance of ladies, and they were valued accordingly. It is readily to be comprehended how the position of an Englishman's wife is preferable to that of a sultan's: the English wife is alone; the sultan's spouse shares his affections, such as they may be, with some four hundred!

Matonaza viewed this state of things with delight. He had, since his residence with the Pale Faces, become ambitious. He aimed at civilising his people; he had already induced his tribe to consider the matrimonial tie as permanent, which was a great step. Then he boldly entered upon the somewhat rash experiment of alleviating the laborious duties of the women. He tried to induce the men to do some of the hard work; but here he met with invincible repugnance. The women had been always accustomed to draw the sledges, carry the baggage, and pitch the tents, while the men hunted, ate, and smoked. Any departure from this line of conduct was beneath 'the dignity' of a warrior. Matonaza discovered that to expect any permanent change in a nomadic race used to hunting, leading a wandering life, and accustomed to arms, was difficult. He felt that he must first make his people sedentary and agricultural, and then begin their civilisation.

Having conceived this plan, he despatched the best runner in the tribe to Prince of Wales Fort. He gave him some furs, and a message to Moses Northon, with directions to follow the most unfrequented trails, to travel cautiously, and by no means to allow the terrible Indians of Athapascow Lake to track him. Three months passed before the runner returned, and then he came accompanied by a young and adventurous

Englishman, who had sought this opportunity of learning the manners of the far-off tribes, and of studying the geography of the interior. Matonaza received him well, and was glad of his assistance to lay out his fields of corn and maize, by sowing which, he hoped to attract his Indians to a permanent residence, and to destroy all fear of famine. Mark Dalton joyously seconded his projects. He was the son of a gentleman who was a shareholder in the Hudson's Bay Company, and who joined to the love of travel, adventure, and the chase, considerable knowledge of agriculture. One year older than the Indian chief, they at once became warm friends, and from the hour of their first meeting, were never a day apart.

It was not without difficulty that the chief could get his fields dug, small though they were; though he and Mark worked, because the women alone followed their example. The soil was not of the best character, and the climate pretty rigorous; but still corn would grow, and Matonaza suffered not himself to be downhearted. A whole spring, summer, and autumn, were devoted to these agricultural pursuits; and when, at the end of the fine season, a good harvest enabled the tribe to vary their food from venison, fish, and buffalo meat, to corn-cakes, and other preparations of flour and maize, all were satisfied. The Indians, naturally indolent, were pleased at the prospect of obtaining even their food by the labour of the women. This was not precisely what the youthful chief desired, but it was still a kind of progress, and he was so far gratified.

But he did not neglect his hunting. Eager to show Mark all the mysteries of his craft, Matonaza led him after the elk, which they ran down together on foot in the snow. This is the most arduous department of Indian hunting. The sportsmen throw away all arms which may embarrass them, keeping only a knife, and a pouch containing the means of striking a light. Being practised while the snow is on the ground, the men accordingly wear long snow-shoes. The Indian chief and Mark Dalton rose at dawn of day, and having succeeded in discovering an elk, darted along the snow in pursuit. The chase under ordinary circumstances would be vain, a man being not at all equal to an elk in a running match; but on the present occasion, while the unfortunate animal sank at every step up to his body in the snow, the men with snow-shoes glided along the surface with extreme rapidity. With all these disadvantages, the animal often runs seven hours, ten hours, and even four-and-twenty in some rare instances; seldom, however, escaping from the patient hunter. When reached, they make a desperate defence with their head and fore-feet, and have been known to slay their human enemy.

On the present occasion, the animal was a magnificent specimen, considerably taller at the shoulders than a horse, and his head furnished with antlers of fifty pounds' weight. His coarse and angular hair, so little elastic, that it breaks when bent, was of a grayish colour, having probably changed at the beginning of the winter from nearly black. He was tracked by his footprints on the snow, the hunters keeping at some distance to leeward of the trail, so as not to alarm the watchful animal even by the crackling of a twig. He was at length seen, but at too great a distance for a shot, sitting on his hams like a dog, and seemed at first in no hurry to rise; though, when at last satisfied of the character of his enemies, and his mind made

up for flight, he got upon his legs; but even then, instead of bounding or galloping like other deer, he shuffled along so heavily, his joints cracking audibly at every step, that Mark was inclined to form but a mean opinion of the sport. Gradually, however, its ungainly speed increased, its hind-legs straddling from behind, as if to avoid treading on its fore-heels; and when a prostrate tree interposed in the path, it stepped over the trunk, however huge, without its flight being interrupted for an instant. It seemed, in fact, that smaller obstacles were more dangerous to the fugitive than great ones; for running, as he did, with his nose up in the air, and his huge horns laid horizontally on his back—an attitude necessary, it is to be presumed, to sustain their weight—he could not see close to the surface, and on one occasion a branch which protruded only a few inches from the snow caught his fore-feet, and he rolled over with a heavy fall. The hunters thought they were now sure of their prey; but the elk scrambled on his legs again in surprisingly little time; and as he pursued his flight with unabated speed, Matonaza seemed to derive some quiet amusement from the surprise of the Pale Face, as he found himself engaged in so difficult a chase of so apparently unwieldy an animal.

It was the policy of the hunters to turn the fugitive to where the snow was deepest; but, as if knowing his danger, the elk continued to keep on comparatively hard ground, and at length, by the intervention of trees and inequalities of the surface, he escaped wholly from view. His trail, however, could not be concealed; and for many hours his pursuers followed, well knowing that their quarry was only a short distance in front, but unable to obtain a glimpse of him. The trail at length appeared to turn towards a hollow, where the hunters might be tolerably secure of their prize; and the two friends separated, to make such a sweep as would lead them to the same point. Presently, however, the animal appeared to discover his imprudence; and at a moment when Mark was unprepared, he saw the huge creature returning on his own trail, and within ten or twelve yards of him. The rifle seemed to go off of its own accord, so sudden was the discharge; but the shot missed, and on came the elk, its nose no longer in the air, but pointing full at its enemy, with the points and edges of its tremendous antlers in terrible array. Mark did not lose his presence of mind; but springing behind a young tree which was fortunately at hand, felt himself for a moment in safety.

It was not the antlers the hunter had to fear, for they were not used as weapons of offence; but the creature, determined to carry the war into the enemy's quarters, struck furiously at the intervening tree with his fore-feet, and Mark speedily found that its shelter would not long be between him and his justly-incensed enemy. No other tree was near enough at hand, and he was too busily engaged in dodging round and round to be able to load his rifle. Faster and faster fell the blows of the fore-feet. Now a piece of bark, now a splinter of wood, flew off; and now the tree bent, split, and came crashing down. Even so fell the elk; for just at the critical moment, a bullet from the Indian chief, who had returned to the rescue at imminent peril to himself, struck him in a vital part, and killed him on the spot.

The two hunters made prize of the skin, and of the more delicate parts of the dead animal, and on returning to their companions, loaded with the

spoil, Mark ate for the first time of elk flesh of his own hunting. This is considered a great delicacy by the Indians and all residents of the fur countries. It is preferred by many to beef, and the fat resembles that of a breast of mutton.

When the spring had arrived, it was resolved that the whole of the male party, save two old men, should start on a trip to the mountains in search of buffalo and elk, which they intended to kill, dry, and drag home on sledges made from the first trees they laid their hands on. The women were to join them six weeks after their departure at a place close to the scene of their hunt; and thus reinforced, the men hoped to have an ample stock of dried meat for the winter. Great preparations were made on the occasion. All the arms of the tribe were furbished up. Matonaza and Mark alone had firearms; the rest had bows, arrows, and spears. The women mended the clothes of the hunters, packed their provisions, and made the thongs to drag the sledges with. But the chief part of such utensils were to be brought by them to the rendezvous. The gentle, lovely, and blushing White Swallow herself made everything ready for her betrothed, to whom, on his return, she was to be united. All was smiling, promising, and joyous. The fields of the little settlement were improving; the wigwams exhibited the air of more permanent buildings than they usually are; and when the warriors departed on their errand, they left behind them a happy and hopeful community.

II.—THE ATHAPASCOW FORAY.

As soon as the men were really gone, the two elders proceeded to organize the movements of the party for the next six weeks. They had been directed to make clothes, watch the fields, fish for their subsistence, and do all needful domestic duties. All save the White Swallow. She, the unmarried but affianced bride of the chief, was, by custom, exempt from all share in labour; but to this her tastes and feelings were repugnant, and though the White Swallow neither scraped leather nor carried burthens, she was yet industrious in her way. She learned to make her own clothes, to fish in the lake, to light a fire, to build a tent, to snare birds, and to perform a multitude of other things necessary to the existence of an Indian woman.

Then, again, while her companions were scattered round the lake or in the fields, she would stop with some of the more helpless infants. She would, while overlooking them, sit still and think with pride and joy on the absent one, whose image was always uppermost in her thoughts. In general nothing is more pleasant to the gentle female heart than the memory of beings well beloved and far away; and no employment is more conducive to this dreamy occupation than sedentary ones. The women one day started to fetch the produce of their successful draught of a large net at some distance, taking with them the two old men. The whole camp was abandoned to the guardianship of the White Swallow and a couple of shaggy, ill-looking dogs, which were none the less faithful because ill-favoured. The young girl had volunteered for this service; and to her charge were committed eight infants of various ages, that rolled about on

a green spot with the dogs, unable to crawl because of their uncouth swathing. As they had been well fed before the departure of the mothers, the duty of Thee-kis-ho, the Indian name of our heroine, chiefly consisted in keeping away any wandering wolves, from invading the camp; a service which the dogs probably could render even more effectively.

However this may be, the young girl seated herself on a log at no great distance from the wigwams, and thence looked around. At her feet was the lake, divided from her only by some fifty feet of corn-field; Matonaza having placed his fields near the water. To her right was a large and novel building for an Indian village, erected under the guidance of Mark, and which served as the granary of the tribe. Close to this was the wigwam of the venerable dame who was her adopted mother—not one of her relatives remaining alive. At some distance was the chief's hut, and on this her eyes were fixed; and the sight naturally enough filled her mind with sunny thoughts; for she could look forward now to its being hers too at no distant period; and cold, indeed, must be the female heart which is not warmed at the thoughts of the home which is soon to receive her as a wife.

Thus occupied, and watching over the children, and in preparations for the evening meal, the hours flew swiftly by, and the White Swallow at last heard the voices of the returning party just as night was about to close upon the scene. At this instant her ear was attracted by footsteps approaching from behind. She turned, and one wild shriek betrayed the intensity of her alarm.

'The Athapascows!' she cried, springing up, and about to dart away to meet her companions.

'Stay,' said a young warrior, leaping to her side; 'there is room in my wigwam for another squaw.'

Seven painted and horrid Indians were around the young girl ere she could move. They were all in their war-paint, and well armed: they stood gazing at the village for an instant, as if irresolute.

'Warriors of the Dog-ribbed race!' cried the resolute girl in a loud and ringing voice, 'on to save your wigwams! The lying foxes of the Athapascows are among us!'

The young Indian seized her by the arm, a second plucked a brand from the fire, and cast it into the granary, and then the whole party, conceiving the men of the tribe to be upon them, commenced a rapid retreat, bearing with them their wretched and disconsolate captive. They were a party of ambitious youths, who, having hit upon the trail of the runner the year before, had tracked his steps in search of scalps and glory. Alighting on the camp when deserted by all but the White Swallow, they had intended to hide in the huts until the return of the rest of the party; but suddenly startled by the cry which responded to that of 'Thee-kis-ho, they fled, believing the whole tribe to be upon them. Their haste had marred the object of their expedition, while their position became one, as they thought, of extreme danger. The part to be played by the young girl was most painful. If she revealed the absence of the men, the Athapascows would return, and capture the rest of the women; if she remained silent, she was doomed to be hurried away into captivity, all the more horrid because of her late day-dreams and visions. While dwelling on these thoughts, she

found herself proceeding to a considerable distance from the camp in a south-easterly direction. The Indians moved with the utmost rapidity and silence towards a very broken, stony, and arid plain, the last spot which men would have been supposed to choose for a retreat. Suddenly they halted at the edge of one of those deep fissures met with sometimes in the prairies and in the plains of the West: this was their camp. Their victim was told to go down, and was then placed in a natural hollow, the Indians barring all exit. They next proceeded to light a small fire with some well-charred wood, that gave neither flame nor smoke, upon which they cooked their evening meal. A piece of meat was given to the girl, which she ate, strength being necessary to her. She had not abandoned all hope. There are a thousand chances between total despair, as between the fruition of hopes, and Thee-kis-ho, while crouching in her hole, strained every faculty of her mind for an idea out of which might come escape.

The Indians conversed with considerable volubility as soon as one had departed as a scout. There were no aged or experienced warriors among them to check their eagerness and levity. They expressed themselves in a dialect which the White Swallow partly understood. She could distinguish that they spoke with considerable disappointment about their failure, and that all seemed determined not to return home until they had obtained a sufficient number of scalps to excuse with the elders of the tribe their temerity and long absence. Much difference of opinion prevailed, but at last the whole party came to a resolution which can only be comprehended by those who know the Indian character. They resolved upon marching northward to the Coppermine River, to waylay and attack the unfortunate Esquimaux, whom they expected to have the double satisfaction of killing and robbing. These Esquimaux have from time immemorial been the prey of the more southern tribes, whose persecution accounts for a large portion of the race having abandoned *terra firma*, to live on the islands in the Polar Sea, where they were found by Ross, Parry, Franklin, and other explorers.

Thee-kis-ho heard this decision with varied emotions, while another gave her unqualified satisfaction. It was determined that, as their prize was young and pretty, she should be the reward, at the end of the expedition, of the bravest and most distinguished member of the party. The journey with which she was threatened was long, arduous, and of doubtful issue; but it offered all the more readily, on this account, some chance of escape, and the occurrences of the two or three moons before her might still enable her to wed the young chief, a consummation which she resolved should never happen if she were forced first of all to be the squaw of an Athapascow. The moon rose about midnight, when the Indians were smoking, and the scout then returned, bringing word that their camp was admirably hidden, and that there were no alarming signs within some miles. Satisfied with this assurance, the whole party went to sleep, after tying both the arms and feet of their captive in such a way that, while not hurting her, the things completely precluded movement.

Wearied with her walk and her thoughts, the White Swallow went to sleep, and awoke only when summoned to cook the morning repast of her captors, after which they started along an arid plain towards the north, in which direction lay the villages of the Esquimaux. About mid-day a halt

took place near a small wood; and while some went about in search of game, the rest set hard to work to make shields, which were absolutely necessary to defend themselves against the fish-bone arrows of their enemies. Thee-kis-ho received a knife—part of a sharpened hoop—to aid in the process, which, when the work was concluded, its owner forgot to reclaim, and the Indian girl gladly hid it about her person. The shields were ingeniously fashioned of small strips of wood fastened by deer-skin thongs, and when finished, were three feet long, two feet broad, and a couple of inches thick. It was nearly evening when the work was concluded; but the Indians, fearful of being pursued, after eating a hearty meal, continued their march some hours longer, and camped near a lake of small dimensions. The White Swallow took careful note of all the places they came to, that she might find her way back again if possible, and was not sorry to observe that the Indians left a pretty evident trail.

For several days after their progress was very slow indeed, as much game fell in their way, and the Athapascows, to whom eating was even more grateful than glory, revelled on the fat deer of the lakes. Much more, however, was killed than was consumed, from the mere love of waste, which is inherent in most savage people. These Indians would not pass a bird's nest without destroying it, much more a deer which they could neither eat nor carry; while, if they refrained from setting fire to the grove of trees they camped in at night, it was not from any calculation that they or others might want the grove again, but because the conflagration might betray them. Here, as in nearly everything else, the alleged superiority of the 'child of nature' fades before examination.

They soon reached the confines of inhabited ground, when they hit upon a branch of the Conge-cathawachaga River; and as the dwellers on its banks were enemies, and too powerful for seven men to attack, every precaution was taken. No fires were lit; they camped in strange out-of-the-way places; and crossed the stream swimming, despite the rapid current, which swept them a long way down. They hit one night on a large camp, with blazing fires and numerous dogs, but moved off as fast as possible, being not at all inclined to have fifty Coppermine Indians at their heels. These savages do not live so near the sea as the Esquimaux, but they have many of the same habits. Still, they are a distinct race, though probably all the inhabitants of America are of Tartar or Chinese origin.

They were still at some distance from the Coppermine River, and weary and sore-footed indeed was Thee-kis-ho, now some five or six hundred miles away from the home of her friends and her intended husband. Provisions, too, were now short; and as on such occasions the men of this part of America help themselves first, the White Swallow went often to rest without food. An Indian, when reduced to semi-starvation, will rarely if ever divide what he has with his wife or wives—he eats all, and leaves the women to starve. Some days even the men were reduced to a pipe and a draught of water, and the girl was glad to chew the leaves of an odoriferous plant by way of a last resource.

The way too was arid and rough. They were now amid the Rocky Mountains of the farther north, a vast and dark pile of rocks looking perfectly inaccessible; but on went the Indians, sometimes walking, some-

times crawling on their hands and knees. The path, however, was marked and clear as any highway, but often so steep, as to present extraordinary difficulties. At night they slept in hollows and caves without fire, generally from want of wood; but sometimes from the heavy rains, which rendered the moss, usually a never-failing resource, damp and useless. All this tended to put the Indians in a savage humour, which promised little for the poor Esquimaux; and Thee-kis-ho suffered all the more neglect and hunger. In fact, with the exception of raw meat devoured with ravenous ardour, there were no meals taken during the whole time they were crossing the mountains.

Near Buffalo Lake they killed a large number of the animals which give it its name, and finding some wood, regaled themselves. The White Swallow, more determined than ever to fly, concealed a small portion of food about her person, that at all events she might not starve in her flight. The road, after their departure from Buffalo Lake, became less rugged and disagreeable, while, by signs which had been described to them by certain old Indians, they believed themselves approaching the termination of their journey. The young men seemed chiefly satisfied at recognising the eminence of the Gray Bear, so called because frequented in certain seasons by those animals. At last the sight of a large wood, and of a river in the distance, made the warriors eagerly advance. They were in view of Coppermine River, a stream wide, shallow, and filled with rocks and cataracts.

A halt was now called, and a council held. All were unanimous that a day's rest and food were necessary before striking their intended blow. Accordingly, while the White Swallow and two Indians stopped to prepare the fire, the others started off in various directions in search of game. It was the last time they would hunt before they attacked the Esquimaux, as it would henceforth be dangerous to let the report of firearms be heard in the neighbourhood. Before two hours had passed, each Indian had brought in his deer, and then all fell to work to broil, and roast, and stew, eating as they went on. The consumption of victuals would have alarmed an English troop of horse, but the enormous capacity of the Indian for food is well known. It is enough to say, that had the White Swallow not been well fastened by leathern thongs, she could easily have escaped, as, before night, every Athapascow warrior was sleeping off his feast like a boa-constrictor.

III.—MATONAZA.

When the Indian women saw the brand thrown into their granary, and caught a glimpse of the retreating Indians, they knew at once the nature of the late surprise. Their first impulse was deep gratitude for their fortunate return, for one minute longer, and every child on the green-sward would have been immolated; the Red-Skin in his wars sparing neither toddling infancy, decrepit old age, nor defenceless women. Then a scream of rage and despair arose as they discovered that the pride of the tribe, their chief's affianced wife, was gone. They looked about in speechless terror, expecting to see her bleeding and mangled corpse, but several declared that they had

recognised both her form and her voice among the marauders. Then all the women, and the boys and lads of eleven and twelve, seized every available weapon, and after lighting huge fires, prepared to pass the night. The conflagration of the barn was easily extinguished; and fortunately so, for it contained the whole of the unconsumed autumn crop.

The night, though full of alarms, passed peaceably, and before its termination, one of the old men had severely cautioned and instructed one of the lads whom he designed as the bearer of the news to Matonaza. The boy, proud and honoured by the trust reposed in him, took his bow and arrows, provisions for four days, and just about dawn started at a round trot towards the hills, which he reached with unerring accuracy on the third day. But no trace of the warriors of his tribe did he find. Still, the lad hesitated not a moment: climbing a lofty and prominent eminence, he cast his eyes for some ten minutes round the horizon. Satisfied with this scrutiny, he tightened his belt, descended, and darted across a long low plain, at the very extremity of which he had seen a rather remarkable column of smoke, which the boy at once attributed to the Pale Face who accompanied his friends.

After three hours of continuous running, he gained a small lake, on the borders of which was a fire in the centre of a grove of trees. He clearly distinguished a man engaged in the classical and time-honoured art of cooking. It was Mark, as he expected; who, being a little wearied, had volunteered to pass a day in the camp, cooking and inhaling tobacco smoke, with eating, which is the *acmé* of luxury in the eyes of a prairie hunter. The lad advanced straight towards the fire, and without speaking, sank, exhausted and fainting, at the feet of the Englishman. Mark seized his double-barrelled gun, fired both barrels, and then, these preconcerted signals given, piling a great armful of green boughs on the fire, stooped to attend to the boy. He raised him up, gave him water, a little brandy, and then food. In a quarter of an hour he could tell his story. Mark heard him with dismay. He had formed a warm attachment for his Indian friend, and a proportionate one for his future wife. He knew at once how agonizing would be the feelings of the young warrior, who, having but this one squaw in view, had fixed on her his ardent affections far more strongly than is usual with a Red-Skin.

It was not long ere the whole party were collected round the fire. The Indians came in from all sides at the sight of the signal. A dead silence then ensued, not one of the Red-Skins asking any questions. All saw the boy; but not even his own father evinced any womanly or unusual curiosity by taking notice of him.

'Matonaza is a great warrior,' said Mark Dalton solemnly, after a certain pause; 'and his heart is the heart of a man. The Athapascow Indian is a snake: he has crept in and stolen away the Swallow.'

The young chief said nothing, but Mark plainly saw the muscles of his face working, and knew how he felt. But he took no note of the warrior's emotion, but bade the boy tell his story.

The lad stepped forward, and briefly narrated what had happened.

'Ugh!' said Matonaza after a pause; 'my brothers will continue their hunt. Let them keep hawk-eyes about them. Matonaza and the Roaming Panther,' pointing to the runner who had formerly gone with him to the

Prince of Wales Fort, 'will chase the thieves who steal away women. Let us go!'

Mark started to his feet, caught up his rifle, took a substantial piece of deer's meat, and was ready in an instant to join them. A few words passed between the chief and his people. He directed them to proceed with their duties. He would send the women to join them at once; and with Mark and the Roanfling Panther, he started on his chase of perhaps a thousand miles and more, apparently as coolly as a European would have gone out for a walk.

The evening of the third day found them at their village, where they were received in respectful silence. Matonaza caused the old men to tell the story of the White Swallow's abduction once more; and then, after bidding the whole party go join the hunters, retired to rest with his two companions, bidding Mark sleep as long as he possibly could. The chief did not rouse him till a late hour, after he had himself tracked the trail of the Athapascows to a considerable distance. They breakfasted heartily, and then each man, with his gun, powder, and powder-horn, started on his way. The chief led the van, his eye fixed on the trail of the party. He pointed out to Mark the moccassin step of the young girl with a grim smile. Mark was pained at the sadness of his expression, but said nothing.

They with difficulty followed the trail along the arid plain which the Athapascows had first hit upon, and at one time, when the ground was unusually hard, even lost it. The two Indians at once parted, one to the right, the other to the left; Mark, who was eager to prove himself of use, looked anxiously about, and at last caused the warriors to run to him. The white man pointed with a smile to the hole in which the enemy had camped on the first night of their flight.

'Good!' said Matonaza, taking his hand: 'my brother has an Indian eye.'

And the journey was at once pursued without farther comment. As frequently as possible the party camped in the places where their enemies had camped before them, as the chief was sure to find some note of the White Swallow—her footstep in the ashes near the fire; a mark where she had lain; or at all events some almost invisible sign of her existence. Every day, however, the warrior grew more uneasy as he advanced towards the north. He began to suspect the errand of the Athapascows. He knew, though only traditionally, the terrible journey which must be performed ere the land of the Esquimaux could be reached, and regarded it as almost impossible that a young girl could outlive its hardships. Still on he went, never dreaming of abandoning the chase—never even alluding to such an idea. He, however, increased the extent of their daily march, though sometimes compelled to delay while seeking for food. The wood where the young men made their shields confirmed him in his belief as to their errand.

At night they hastily ate what food they had, and lay down to sleep. No time was wasted in talking. Rest was all they required, and it was to them of the utmost consequence.

'At this rate,' said Mark one day, when he found himself approaching the north more and more every hour, 'we shall reach the Icy Sea itself!'

'The White Swallow is on its borders,' replied the chief quietly.

And they proceeded on their journey.

They crossed the Rocky Mountains, here also strictly adhering to the trail of the Athapascows, and were at no great distance from the Coppermine River, when one night, at some distance on the plain, they saw a small, low, flickering light. Their own fire was composed of mere embers, but even these were hastily covered up. Matonaza cast his eyes around. Not a tree, not a bush was there to aid their approach, though the camp in the distance seemed to be near a dark object, which looked like a stunted grove of trees. This could not be, however, they having already passed, as they supposed, the region in which trees are found.

The three men looked to their rifles, stooped low, and began to crawl towards the distant fire on their hands and knees. The night was pitchy dark. The sky was lowering, and threatened rain. The low fire, scarcely distinguishable at times, was all that guided them. Presently, however, its glare became more evident, and Matonaza discovered that it was placed under the cover of some low trees which grew on the borders of the Coppermine River. He could now clearly distinguish a party of men sitting round the small fire in the act of smoking; and leaving his companions and his rifle, advanced unarmed, bidding them slowly reach a bank within pistol-shot of the camp. He then began to writhe or slide along the ground instead of crawling, moving a yard or two, and then stopping to breathe or listen. In about ten minutes they saw him roll himself behind the bushes of the camp. They saw no more, for a strong ray of the moon peeped through a cloud, and they could no longer raise their heads above the ground. They fell behind the low bank agreed on, and waited.

Three-quarters of an hour passed, and then Matonaza rejoined them, using the same caution as before. He was out of breath with his hard labour, for such it is to crawl along the ground like a snake, never rising on the hands or knees. As soon as he could speak, he told his companions in a whisper that these were the Athapascows returning after a terrible foray among the Esquimaux. The White Swallow, however, was not with them. They spoke of her absence with regret, and as a severe disappointment, but how her absence was occasioned he could not tell. Matonaza spoke in a tone which was new to his white friend. He seemed husky, and his eyes glared like those of a panther. The fearful excitement he had endured, and his terrible awakening from a dream of happiness, all the greater from his half-European education, had almost driven every civilised idea out of his head.

'Roaming Panther,' said he to the Indian runner, 'is thy rifle ready?'

'What would my brother do?' asked Dalton hurriedly.

'Kill my enemies!' replied the warrior coldly.

'What! skulking behind a bank?'

'Warrior of the Pale Faces, hear my words! Does a bear show himself in the distance when lying in wait for his prey? Does a white warrior, when in ambush, give a signal? We are three: the Athapascow dogs are seven. Not one shall see the home of his fathers: their squaws shall find other husbands. They have robbed Matonaza of his squaw: they shall die!'

A double report followed; and then, as the Indians with a fearful cry rose in the air to lie down again in the dark, the Little Snake, as the handsome young chief was called, levelled and discharged the rifle of his friend Dalton, who had declined to shoot at the unprepared savages.

'I spit on ye, dogs of Athapascows!' yelled the Little Snake as they fired at random. 'A Dog-ribbed chief will leave your bones to bleach on the plains of the Icy Sea!'

With these words the three friends retreated, loading their rifles; and wading across the river, concealed themselves in a low hollow, and sought rest. Mark slept uneasily. The neighbourhood of fierce and bloody enemies, roused to desperation by recent losses, was far from being pleasant; and he was little surprised when, on rising in the morning first amongst his party, a leaden bullet at once hit the bank near him. He dropped down, and in an instant the whole three were again prepared. The Athapascows, six in number—one had been killed—were near a bush on the other side of the river. They had just at daybreak tracked the Dog-ribbed Indians. These fired, nor was Mark behind-hand; and so fatal was their aim, that two warriors fell headlong into the river. The others, who were not aware of the nature of rifles, introduced only by the chief himself and Mark, flew to cover, astounded at the distance at which they had been struck. The friends loaded, and pursued. The Athapascows turned, and fled across the plain.

Matonaza gave vent to a low and scornful laugh. 'Let them go and boast to their women that their brothers were killed in terrible fight. They are squaws, and will tell of a battle with a hundred warriors in their war-paint.'

Mark at once added, that to follow them was to lose all trace of the White Swallow, who was either a prisoner among the Esquimaux, or hiding somewhere in the hollows of the hills, awaiting the departure of their enemies. Besides, no time was to be lost, for the winter was coming on, and all hope of finding her would vanish with that season.

Matonaza replied by turning his back on the river, and searching for the old trail of the party. They soon found the remains of a fire, with bones of animals—deer, &c.—which had been recently devoured, and thus continued their journey at some distance from the banks of the Coppermine River.

IV.—THE ESQUIMAUX VILLAGE.

We left the White Swallow advancing towards the village of the Esquimaux with her worthless companions. The race about to be attacked, like most of the Esquimaux, were of small stature, and little strength or beauty. They are very stout, copper-coloured, and in general ugly, though some of the women form exceptions. They resemble all the tribe in dress, while their arms are bows and arrows, lances and darts. They have canoes with double paddles, and tents composed of deer-skins, with stone and ice huts for winter. Their utensils are all of stone and wood, with spoons and bowls of buffalo horn. Their hatchets, pikes, and arrow-heads are of copper. They are a poor, harmless race, who live by fishing and hunting,

whose sole riches consisted in a little copper they found near the river—thence called Coppermine River.

It was this unfortunate race who, from their helplessness and weakness, had been selected as the fitting victims of the seven Athapascow warriors. In this the Red-Skins only acted in accordance with the true principles of war—to respect the strong, and prey upon the weak. The White Swallow remained behind on one occasion while two scouts went out to scour the banks of the stream in search of intelligence. They soon came back with the information, that about fifteen miles distant were five tents of Esquimaux, so placed as to be completely open to a surprise. It was then decided that the attack should take place the following night. Meanwhile they waded across the river, to be on the same side as their wretched victims. Here they halted to load their guns, furbish their lances, and prepare their shields.

Every man set to work to paint his buckler—one representing the sun, the other the moon, others birds of prey and other animals, with imaginary beings, fantastic human creatures, and beasts of all kinds. They were all to serve as their protection during the combat, their shields being at once ‘medicine.’ Even the White Swallow, who was used to their Indian customs, was puzzled to know the meaning of half the rude drawings daubed with chalk and red clay, as not one had any resemblance to anything in heaven or upon earth. But, like the knights of chivalry, who scorned to write their own names, and seldom could even read a love-letter, these Red-Skin paladins were quite satisfied that military glory was above all artistic merit. They were but of the general opinion of mankind, who admire far more the successful slayer of thousands than the man who can achieve a splendid picture, a magnificent epic poem, or a great scientific discovery.

The shield-painting being over, the party advanced, still following the banks of the river—strictly avoiding all eminences, for fear of being seen, and all speech, for fear of being heard. The way was arduous and painful in the extreme. They fell upon swampy marshes and muddy sloughs, in which they sank above their knees. But not a word was spoken, not a murmur or complaint given vent to. A tall youth had been selected as leader of the band, and no orchestra ever kept better time. They trod in each other’s footsteps with the most praiseworthy unanimity; and night, from their silence, their gravity, their stiff, erect manner, have not inaptly been compared to moving mummies. The White Swallow carried in a bundle the whole of their provisions—no inconsiderable weight, as they desired not to halt an hour when their horrid surprise was effected.

About a hundred yards from where they first caught sight of the Esquimaux village they halted in council behind some rocks. It was now late at night, and yet these savage warriors, not satisfied with their martial air, now began to paint themselves anew. They daubed their faces with a horrid mixture of red and black—on one side with one colour, the other with the other; some tied their hair in knots, others cut it entirely off. They then lightened themselves of every possible article of clothing, which they made up in another bundle, and gave to the unfortunate girl to carry.

The moon now rose: it was midnight. The five tents of the Esquimaux

were situated close to the water's edge, within a half-moon formed by some rocks that projected from a small eminence. Before the tents lay the placid waters of the river, in the midst of which was an island, or rather sandbank, and in the distance another Esquimaux village, of larger dimensions than the present. The Indians gave an 'Ugh' of delight, for here was a second massacre in view, and to these savage men nothing could afford a more charming prospect.

They advanced slowly along the banks of the river, and when within about twenty yards of the tents, halted; and having tied the feet of the White Swallow in such a way as she could by no possibility untie herself, they rushed to their bloody work. To modern readers, even of the details of recent wars, the unpardonable and horrid details of the sack of a city must be familiar: man, woman, and child, have all shuddered, we doubt not, over scenes almost too fearful for belief—scenes remaining for ever as blots upon a civilised and so-called Christian age. But for the benefit of those who have adopted the notions of certain modern philosophers touching the superior amiability and simplicity of the 'man of nature,' we think it well to give some account of the historical scene that was once acted on the banks of the Coppermine.

The Esquimaux, on hearing the wild outcry of the Red-Skins, started from their sleep, and rushed forth, men, women, and children, to escape; but their ruthless foes were at every issue, and spears and tomahawks did their bloody work. The groans of the wounded, the howls of the dying, the shrieks of the children, the shrill yells of the women, were answered by the Athapascow war-cry. As the herd of antelopes loses all instinct of self-preservation before the awful roar of the African lion, and stands a while motionless, so these poor creatures no longer sought to fly or defend themselves. Not one raised his arm. Some wretched mothers covered their offspring with their bodies only to die first. One young girl, of singular beauty for an Esquimaux, caught the chief round the legs: had he been alone, he would have probably saved her, to take her to his wigwam. But the emulation of war was on him; there were his companions to see him hesitate; and quick as lightning, he ran his spear through her. But enough: I spare details more fearful still—details which haunted the first historian and eye-witness of this scene all his after-life.

The White Swallow no sooner found herself alone, than drawing the knife she had formerly secreted from her bosom, she cut her bonds, resolved as she was to lose no more time. This done, she acted with all the coolness and reflection which became the affianced bride of an Indian warrior. She watched the Red-Skins enter the camp, and even let them commence their massacre. A dozen and more dogs darted by, flying from the strangers. One of them passed close to the White Swallow, and smelt her packet of meat. She seized upon a leathern thong fastened round his neck, and threw him food. The dog devoured it eagerly. The girl at once resolved to appropriate the animal, for she knew his nature, having herself been born on the confines of the Esquimaux territory. She fastened on his back the bundle belonging to the Indians, and then gliding gently and noiselessly into the water, began to swim. The dog quietly followed her, attracted by her store of provisions. The girl

was a good and powerful swimmer; but she proceeded slowly, though the noise of the sack of the village might have excused even want of caution. But Thee-kis-ho was too much of an Indian to neglect any precautions. Once landed on the opposite bank, she lay down to watch the end of the scene; at some distance, however, from the shore, and well screened from view.

As soon as the Esquimaux village lay in the stillness of death, and not even an infant remained, the Athapascow ran down to the bank to fire at the men of the other village, who stood stupidly gazing from across the water at the massacre of their brethren. They did not even stir when the leaden bullets fell among them, until one of their party received a flesh wound, when all crowded round him, examined the place in amazement, and then leaping into their canoes, hurried to the distant island, which, being surrounded by deep water, could be easily defended against swimmers with hatchets and bows and arrows.

The White Swallow waited to see no more. The dawn was now breaking in the eastern sky, and her position would speedily become dangerous. Casting her eyes about her to select the best road, she distinguished, a little way up the river, some one seated within a little cove fishing. She hesitated, for time was precious, but her goodness of heart prevailed. Giving the dog another piece of meat, she left him in guard of her packets, and tripped rapidly down to the water's edge. She had her knife, and feared no Esquimaux. As she approached, she discovered that it was an old woman, deaf, and nearly blind, who had been fishing for salmon by moonlight. The fish were seven or eight pounds in weight, and strewed the bank. The old Esquimaux had a line with several hooks to it, and caught fish almost as fast as she could throw, they being almost as plentiful as in Kamtchatka. The White Swallow laid her hand on her arm. The old woman started. The young girl, who knew one or two words of her language, just said, 'Indians—kill all—that side—seven tents on island.' The unfortunate old creature just caught the word 'Indians;' that was enough for her. She cast line and fish at the girl's feet, and mumbling her thanks, fled.

The White Swallow took as much of the fish as she could carry, and the line and hooks, almost believing that the Manitou had thrown them expressly in her way. This done, she rejoined her dog, and taking him by the thong, led him away as fast as she could walk in the direction she presumed to be the right one. She never paused or halted until the mid-day sun warmed her almost more than was pleasant. Then she ate, and gave food also to her dog. He greedily devoured a fish weighing eight pounds, and appeared most affectionately disposed to his new mistress. The girl made much of him, far more than he had been used to; and the poor animal, better fed and better lodged than usual, fawned at her feet like an old and faithful servant.

That fear renders man, and woman too, fleet in their motions, is a received and proverbial tenet; nor did the White Swallow differ in this from the rest of the human race. She shuddered at the prospect of falling again into the hands of the Athapascow Indians. She had seen the massacre of the Esquimaux, and knew well what would be her own fate if caught. No torture that fiendish revenge could devise would be considered

enough to punish her for her escape. On she went again, therefore, despite that she was weary and sore-footed, until she hit about dark on a small river, falling, she supposed, into the Coppermine.

Here, under a bush, she resolved to pass the night. She fed the dog plentifully, cast her line into the river, and then, without making any fire, nestled near the huge animal, and went to sleep. Despite her dangers and her fears, Thee-kis-ho slept soundly, even until after the sun had long risen. When she awoke, she found Esquimaux, as she called him, looking good-naturedly at her, in expectation partly no doubt of his morning meal. She at once satisfied him, and found three fish on the hooks. But she herself ate only the dried venison of her packet, which was still heavy, for she had never yet eaten raw fish, and dared not make fire.

V.—WANDERINGS AND SUFFERINGS.

Cast upon her own resources, without a man to advise or command her, the Indian girl had to perform the rather unusual task of holding council with herself. She at once made up her mind to intense sufferings and complicated dangers, though she had still doubts of ultimate success. She was a vast distance from home—she could only guess the direction; the season was getting advanced; and if surprised by the winter, her absence, if she perished not, would be of more than a year's duration. She had, it is true, a dog, a knife, and a fishing-line. This was much. On the other hand, she had to cross the Rocky Mountains, and not by the same path she had come, for doubtless the Athapascows would lie in wait for her some time in the only usual path. Without arms, without weapons, she must provide for herself and dog. And yet she despaired not. She was an Indian girl, and her prairie education was of a finished character.

Her first thought was to hurry towards the mountains. The stream near which she passed the night seemed to trend in that direction. The White Swallow was not without fear of being followed; she accordingly swam across, and left obvious tracks on the bank, as if she had forded the river. Then loading herself and dog, she walked in the water on a rocky shelf, that gradually brought her back to the other side. She then stepped out, without fear of leaving a trail upon the hard bank. For two days did she advance, and then her provisions began to run short; her dog and herself consumed a great deal during a daily walk of twelve hours. Thee-kis-ho ordered a halt; and while trying her fortune with her line in a small lake, sat down beside the water, and while watching the fishing-tackle, began to construct with deers' sinews, which formed a part of her dress, and some hairs from the dog's tail, those simple snares and nets that produce such wonderful results in a country abounding in game.

They were set at some distance as soon as ready; and next morning two wild partridges and a rabbit rewarded the girl's ingenuity. These, with some fish, gave Thee-kis-ho the hope of being able to provide for herself and canine attendant. The Indian traps and snares are very simple. To catch some animals, a trunk of a tree is so arranged that at the least touch it falls, and kills or secures the animal by its weight. The partridge-traps

are, however, very ingenious. A small piece of ground is partitioned off with little palisades and switches near a willow-tree, the favourite resort of the bird. Some openings are left between the diminutive stockades, and in these openings are little nets; when the partridges come leaping about in search of food, they fail not to be taken in dozens.

Three partridges and some other birds rewarded the second day's efforts of the White Swallow, and as her line also brought her fish, she once more felt hope. On the following morning she again started with renewed vigour, keeping her eyes fixed on the hills she had to cross. She soon found herself ascending; and according to the habits of her education in the wilderness, followed the course of a small torrent in search of an opening in the hills. Her provisions were not abundant, and both herself and dog were placed upon rigid allowance. The third day after her halt she reached the mountains, and began their ascent. Without path, along rough and rugged rocks, her advance at times completely barred, forced to descend and reascend, resting in hollows of the hills, eating small and scanty portions of food, still the heart of the Indian girl never failed her. She was young, full of hope and love; and on she went, though her mocassins were worn and torn, and her feet bled upon the rocks.

Winding, turning, twisting, retreating, it took her more than three days to reach the summit of the hills, and her poor pittance of food was now nearly gone. She sat down on the arid crest of a hill, and gazed upon the plains below—upon those plains which contained her country and her home. She saw for fifty miles the great prairie wilderness lying like a map before her, with its rivers and its lakes, its eminences and its levels; and her heart sank within her as she felt the chill blast of autumn in that lofty region. Starting to her feet, she descended, and after a day's severe fatigue, sometimes walking, sometimes sliding, sometimes actually rolling down a slope of shingle, she reached the bottom, and camped in a little clump of pines.

A pool rather than a lake was at hand; at one end of it she fixed her line and her nets, and at the other she and Esquimaux bathed with delight after their rude and continued fatigues. The dog was as pleased as herself to find himself out of the hills, and testified his pleasure by rolling like a mad thing on the bank, after he had for some time splashed in the water. Suddenly Thee-kis-ho seemed to listen attentively: a crackling noise was heard in the bushes. She crouched almost under water, amid some tall reeds agitated by the evening breeze, dragging the dog with her. At the same instant a tall horned deer leaped madly into the water, as if jaded by the chase which had been given him by a pack of hungry wolves. The White Swallow hesitated not an instant. She knew that in the water a wearied deer was a sure prey. Plunging toward him, just as the dog was at his throat, the bold girl, before the noble beast was aware of his new danger, had mortally wounded him with her knife, which she always carried by her side.

The unfortunate animal made scarcely any defence, and was drawn to the shore to die without a struggle. Thee-kis-ho now bethought herself of her danger. Death was certain if the wolves surprised her in any force. She knew of but one remedy, and that was a huge fire. Two flints formed part of the Indian baggage which she had been given to carry. These she

drew from her bundle, and taking a portion of dry Spanish moss from a tree, with some fungi lying about, she began striking the flints together. Few were the sparks that followed, but presently the moss, which is very inflammable—and which I have often used to light a fire by discharging a loose wadding from a gun—took fire, and by waving it gently backwards and forwards, a flame ensued. Plenty of branches, and even trunks of trees, lay about; and the girl soon found herself with a blazing heap. The fire was made in a cleared nook sheltered by trees, and the night being dark, there was no danger of the smoke being seen. But the wolves came not; some other prey must have attracted them, or they must have lost the scent.

Convinced by this, Thee-kis-ho let her fire fall low, and proceeded to skin and cut up the deer, which, perhaps the only animal of the kind she had any chance of mastering, was a perfect treasure. Flesh, skin, sinews, intestines, bones, all were valuable, furnishing food, clothing, thread, materials for snares and nets. The animal was quite dead; and the Indian girl, who had in the last two months learned much, proceeded to her task quietly. Some portions were prepared for immediate use, the rest laid aside for the future.

Though she had seldom, in her home on the Mahasha Water, assisted in domestic duties, she had observed, and knew everything that could be made of the animal. Tired as she was, she scraped and cleaned the skin, and rubbed it well with grease to soften it. She then cooked her first hot meal since her flight, examined her nets and line, and after amply feeding the dog, lay down to rest. She slept more than twelve hours, and rose much refreshed. She had now a large bundle to carry, and far to go with it; but she abandoned nothing. She loaded herself and her dog with the whole of the precious property, and then once more she started on her way.

But now she found herself in a maze of woods, and lakes, and rivers, and could not tell her road. She was alarmed, for the season was far advanced, and in that high latitude winter was near. Still she advanced with courage and energy, though not recognising one of the places she had seen on coming away from home.

One day she found herself in a thick and gloomy wood. She walked with her dog disconsolately along a track evidently left by the buffalo, ignorant of the direction she was taking, and lost in gloomy reflections. The darkness of the trees, the heavy atmosphere, the weariness of her feet and frame, her failing hope, had much changed the poor girl; and she felt by the wind and the air, and she saw by the sky, that winter was rapidly approaching.

Suddenly she gave a shriek as she emerged from the wood upon a small, green, and grassy plot. Before her, as far as the eye could reach, to the right, to the left, in front, lay the waters of a vast inland sea, dotted here and there by small islands. Thee-kis-ho looked anxiously around; for she knew herself to be on the great Lake of the Woods, where dwelt, said tradition, a warlike and mighty race. But all was still save the waving of the pine, the poplar, and the larch, and the beating of the waves of the sea upon the pebbly shore. The Indian girl stood still musing. Was she still in the land of reality, or was this the promised place to which all the

brave and the good went after death? Her hesitation was momentary; and then other thoughts came upon her.

It was now impossible to reach home that year, and the heart of the White Swallow beat confusedly and almost despairingly within her. Should she live throughout the severe season alone without hunting implements, without a hut, without needful clothing? But even if she did get through the winter, would she, when the birds came again, and nature was green and gay, and the trees put on their bridal clothing, and the earth sent forth perfume, and the dew hung like crystal on the trees, and the sun danced merrily on the waters, and the flowers awoke from their sleep—should she still find her affianced husband without a bride? The Indian girl was alone, none could see her shame, and she bowed her head and wept.

But better thoughts soon prevailed, and Thee-kis-ho began to prepare for her long, and cold, and dreary winter on the shores of the great Lake of the Woods.

VI.—WINTER.

The Indian girl stood like our first parents when chased from Paradise—homeless, houseless, almost without raiment, food, or tools, and with everything to be provided by the labour of her own hands. She began by walking along the borders of the lake, until she came to where a small rivulet fell into the great inland sea, and here she cast her fishing-lines, reinforced by many a new hook made from the bones of the deer. Then she set at some distance, and in various places, all her traps. This done, she thought of her hut. A large tree, the boughs of which began to project at some distance from the ground, was selected as the main-stay. Against this the tallest and stoutest branches she could find, with some drift wood, were leant, so as to form a kind of tent. Other boughs were laid on so thick, one upon the other, that the whole took the aspect of a mere accidental wood heap. It was rude and shapeless, but it was weatherproof, and that was enough for the wants of a homeless Indian. Thee-kis-ho's deer-skin was as yet her only bedding, but now that she had fixed her abode, she hoped to succeed better as a trapper, and so add to the wealth of her wardrobe.

It was late at night when this her first and almost her most important task was completed. But she stopped not until it was concluded. Then she lay down to rest beside her dog, and took the first sleep she had had under cover for nearly three months. At dawn she rose to recommence her arduous labours. Food must be found, prepared, and preserved for nearly the whole winter, now approaching with terrible strides. She found the lake full of fish, and every moment she could spare from setting and re-setting her traps was devoted to fishing. While waiting for the arrival of a hard frost, which she knew would set in in course of a few days, she looked about her. A portion of the lake formed a small pond off the rivulet, with an entrance not five feet across, and about two feet deep. As soon as she caught her fish, which she did as fast as she could throw her lines, she cast them into this pond, having first made a dam by throwing branches and stones into the narrow channel, which left ample passage

for water, but none for the escape of the trout, pike, and other large fish of the lake, which, like that of Athapascow, is renowned for the abundance and size of its finny inhabitants.

Wading in the water, provided with a stick, a rude bark-net, and her dog, she could always re-catch them at will. Every day, too, she added to the numbers of rabbits, partridges, and squirrels which she caught in her traps; and while roaming about the woods with Esquimaux, she on one occasion, by his aid, caught a porcupine. One day, too, she hit upon a small beaver dam, and captured several of these sagacious animals. Presently, however, the snow began to fall in heavy flakes, and Thee-kis-ho found herself in winter. All her fish were at once taken out of the water, and placed in a position where they were freely exposed to the cold. The next day the whole country was covered with a thick coat of snow, and the fish were frozen hard.

The change in the weather by no means changed the industrious habits of the young White Swallow. A part of the day was spent in making herself warm clothes with her rabbit, beaver, and squirrel skins; and though alone, they were made with all the elegance of which she was capable, for she was still a woman. Then she cast her lines, taking care, now the cold was come, to drop them in deep places, while she found employment every day for hours in mending old and making new traps. Then to make a fire in the morning, when she had not kept the embers alive all night, was a waste of time and labour, for the moss was damp, and would not burn; but Thee-kis-ho soon took care to have a supply of tinder in the shape of fungi, which she dried by a warm fire, and hung up in her hut.

She had, at first at all events, plenty of food. The little animals she caught, famished and hungry, snapped greedily at the baits offered them, and rarely did a day pass without its due proportion of prey. Furs became plentiful; and as the cold became more severe, the Indian girl not only clothed herself with them, but made bed-coverings, and lined the inside of the tent. Her fire, despite the smoke, was made, according to the fashion of her tribe, in her tent; the acrid vapour escaping by a little opening in the summit, and by the narrow door. A small fire was quite sufficient both for cooking and warmth.

The next labour undertaken by the White Swallow was making herself a pair of snow-shoes with which to take exercise. Without them walking became painful. At one time she thought of constructing a sledge, and on setting out towards the Mabasha, with her dog dragging a load of provisions; but the doubtful nature of the enterprise made her at once give it up, and resolve on waiting the return of the warm summer season. From tradition and report, she believed she knew pretty well her whereabouts, and regarded the journey before her next year as of little consequence.

Still the young girl felt some desponding emotions. Continued solitude may have its charms for the melancholy and misanthropical, but the young and hopeful long for the society of their fellows, and for communion with the world. It is true that Thee-kis-ho had both ample occupation and dumb society; but I believe few young ladies will deny, that however constantly their fingers might be employed, and however faithful a com-

panion their dog might be, they would pretty nearly always like the addition of some conversational associate; and not the less if this associate were an agreeable man. The loving and faithful Indian girl never had Matonaza out of her thoughts—she dreamed of him at night, she thought of him by day, and during every occupation found him present to her imagination.

At break of day she would rise and light or trim her fire, before which some meat or fish was then set to cook. Then she went down to the lake to look at her lines, until such time as the edge of the water froze hard, when fishing ceased, for she had no nets with which to try her fortune under the ice. Her land-nets were, however, always a source of employment, and generally of profit, for the winter game was abundant round the lake. Then she returned to the hut to cook her breakfast, and feed her dog, an animal now more useful as a companion than as a servant. This done, she sat within her tent by a fire of hot embers, and near a narrow loophole admitting light, adding daily to her wardrobe, until the dead of winter arrived, when she had no choice but to take exercise on her snow-shoes, or to lie in darkness in her hut, hermetically closed against the air.

Still she repined not, for time passed rapidly with her; the middle of winter was now come, and every hour brought her nearer the period when, on the wings of affection and hope, she would hasten towards the village of her youth, her affections, and her future joys. The innocent and warm-hearted girl never doubted her affianced husband's truth and affection; and if a suspicion came across her that he might have found one to take her place, and cause her to be forgotten, she speedily drove such gloomy images away.

The worst of the winter was now past, but not the difficulties and sufferings of our heroine. During the bitter cold of December and January she scarcely made any captures, while the appetites of herself and her dog remained always the same. She therefore saw her store of fish and frozen game almost completely consumed, while in three days one solitary bird would alone reward her efforts. The cold, too, was intense; and one day, more damp and disagreeable than usual, her hot embers went out during the night, and the tinder she had preserved would not light.

The poor girl was driven to eat raw and frozen fish, and to take violent exercise on her snow-shoes. That night, but for her dog and her furs, she would have been frozen to death. Next day her efforts were not more fortunate; and, seriously alarmed at this accident, Theo-kis-ho was almost inclined to give way to despair.

Five days passed without fire, and the Indian girl began to fear to go to sleep lest a severer cold than usual might chill her limbs. One morning, after eating her miserable, cold, and wretched pittance, and vainly endeavouring to get fire from her broken flints, the White Swallow went out to walk, when two startling sights arrested her attention. It was blowing a smart breeze on the lake, and yet in the distance three canoes full of Indians were paddling smartly, as if making their way from some of the islands of the centre towards a prominent point of land to the left. On this point there was a fire, giving more smoke than was usually the case under the circumstances in the woods. The White Swallow at once con-

jected that her own obscure position in the depth of a bay, and the fact that her fire was always made amid very tall trees, and of a moderate size, had alone—together with the intervention of an island pretty thickly wooded, at the mouth of the bay—protected her from disagreeable visits.

There was danger in the journey, but Thee-kis-ho at once determined on venturing across to the fire, to pick there some hot brands with which to relight her own, but in a very small and cautious way. She surmised that if the fire was made by persons hostile to the party in the canoe, a fight and a chase would ensue, when her efforts would be practicable enough. Then the fear came on her of leaving a trail, which some of them might hit upon, and trace her to her hut. This made her use extreme caution. She eagerly retreated within the shelter of the new-clad trees, and thence watched.

The smoke of the fire became now very thick, and the canoes reached the land. There were some dozen warriors or more, and after one or two had plunged into the thicket, to examine, as she supposed, what the foe was, the rest stood still. In a few minutes they were called to join their companions in a way which showed that the fire was abandoned, or that those around it were found. Then two men burst from the thicket, leaped into the first canoe, cast the others adrift, and paddled away.

A yell, distinctly heard by the Indian girl, then arose, and the warriors came rushing back. One of them easily caught a canoe, which had been checked by some ice, and the whole party again betook themselves to the water in chase of the fugitives. These made for the island nearest to the White Swallow's lonely hut, and were speedily lost behind it. In ten minutes more the others were equally so; and Thee-kis-ho saw no more.

The young girl was now seriously alarmed. She was in the very centre, it appeared, of some battle-ground of those who could not but be enemies to her, and it would be a strange chance if they did not hit upon her humble dwelling, in which case all her efforts and heroic fortitude would have availed her nothing: so she returned not to the Mabasha, it little mattered what Indian called her his squaw. Filled with alarm, and allowing all kinds of gloomy ideas to prey upon her, the White Swallow returned to her hut, now so buried in the snow, as to resemble rather a snow-heap than a wigwam, and hiding herself under her fur coverlids, sought to collect her thoughts. All her reflections, however, produced no very satisfactory result, and she soon fell fast asleep. Suddenly an angry growl from her dog alarmed her: she awoke with a violent start; the door of the hut was opened, and the face of an Indian warrior peered in upon the darkness!

The White Swallow lay motionless. She discovered that it was night, and that the moon had risen, and that she could see, though not be seen. Then she started up.

'Matonaza!' she cried.

'Thee-kis-ho!' replied the Indian.

The young warrior looked behind him: no one was near: and giving way to the native impulses of his heart, he passionately embraced his affianced wife. The dog at once ceased growling, and the lovers were soon sheltered from the piercing cold under cover of the hut.

VII.—THE LOVER'S SEARCH.

Matonaza, Mark Dalton, and the Roaming Panther, continued on their way without stopping, until they reached the scene of the already narrated Esquimaux massacre. No one had approached its precincts since the departure of the Athapascows, and tents and dead bodies all lay in horrid confusion. The corpses were eagerly examined, but the White Swallow was not among them. At all events, then, she had not been killed in the fray. This was a source of prodigious relief to the whole party. A council was held, Mark Dalton inclining to the opinion that the girl had been captured by some of the other Esquimaux, while the chief believed her to be returning on her way alone. But should the idea of his pale-faced friend be correct, it was necessary to examine into the circumstance at once, as it was easier to make these inquiries now than after a long and arduous search.

They accordingly ascended the rocky eminence above the huts, and gazed around. The seven tents were before them, and some smoke seemed to evince that they were inhabited. It was necessary to cross the river to hold communion with them, but it was dangerous to show themselves in a way which might terrify those who had witnessed so dreadful a massacre. It was agreed that the Roaming Panther, who was a splendid swimmer, and knew a little of the Esquimaux dialect, should venture across alone, and under cover of the unerring rifles of the two friends. He accordingly plunged into the water, and in a very short time stood upon the opposite bank unarmed, and shouting a welcome to the copper-coloured race.

The inhabitants of the huts rushed out in great alarm, which subsided when they saw one unarmed man before them. The Roaming Panther walked into the middle of the group, speaking with extreme volubility, and pointing with signs of horror to the scene of the late terrible catastrophe. The Esquimaux stood round him in timid wonder; but after about ten minutes, his eloquence seemed to prevail, and one of the men entering a canoe, moved across towards the two friends. The savage, it was quite clear, was very uneasy at first, but he appeared more tranquil as he came near and distinguished the friendly gestures of the strangers.

In ten minutes more the three wanderers were the guests of the poor northern aborigines, who received them with extreme hospitality. There could be little conversation when the chief and the runner only knew a few sentences; but such as it was, it was wholly about the event of the hour—the slaughter of the neighbouring family. Matonaza easily discovered that the Esquimaux knew their enemies to be seven in number, and immediately made signs that they had killed three of them. The Esquimaux looked uneasy at this for a moment; but reflecting no doubt that if killing was the trade of these also, they would have commenced shooting fire at them from the other side, they became gradually calmer. Then the Little Snake drew the conversation to a young girl of his tribe whom the Athapascows had stolen away, and who was yet not with them.

One of the men nodded his head, and pointed to a half-deaf, half-blind old woman who sat in a corner. Matonaza looked puzzled, but waited. The Esquimaux bawled in her ear, and the hag began to mumble some-

thing, which the other spoke over again more clearly. It was to the effect that a young girl, sweet in speech, and beautiful as an angel, had warned her, whilst fishing, of the presence of the Indians, but had been no more seen. This was enough for Matonaza, who, after some further cross-questioning, and a careful examination of the neighbourhood, discovered that, six days before, the White Swallow had got the start of him on her way home.

But for ten days previously they had pushed on with such haste, as to be worn with fatigue almost to death, being likewise half-starved, and without mocassins. A good day's rest, and food, and new shoes, were indispensable. They therefore accepted from the good-natured Esquimaux a supply of fish, and a tent, and disposed themselves to eat, rest, and make shoes, having saved some deer-skin pieces for the purpose. It was only after a day and two nights' rest that they felt themselves able to renew their journey; but then they started with energy, strength, and hope. Their new friends parted from them with good wishes, and an expression of regret that all Red-Skins were not so pacific.

It was now necessary to follow the trail of the young girl with extreme caution. Fortunately it was clear and obvious enough at first, though all were puzzled about the animal which accompanied the White Swallow. It was clearly a large dog; but how she came by so unexpected a friend was somewhat difficult to conjecture. All parties, however, were soon at fault. The river was reached where Thee-kis-ho had hidden her trail, and it now became requisite to be, according to the words of the chief, 'all eye.' The Roaming Panther followed one bank of the stream, while Mark and Matonaza followed the other, for a long time in vain. The bank was hard and rocky or pebbly, and not a trace of the Indian girl was to be found.

'Ugh!' said the young chief suddenly.

They were standing near a stunted bush, and there, on the ground, were some faint traces of a camp, with some fish-bones abandoned by the dog. The party halted, and after a few words of congratulation, supped on a couple of wild rabbits and a partridge, all the results of the day's chase, cooked by means of the stunted branches and trunk of the bush. It began now to be very cold; and when the trio in their turn commenced ascending the gully by which Thee-kis-ho crossed the Rocky Mountains, the blast blew chill and keen. Here, too, in these stony hills they lost all trace of the girl.

From that hour, indeed, the trail was wholly lost to them. So much time was consumed in hunting for it, in looking for provisions, and in roaming hither and thither, that the snow overtook them before they had passed the lake where the young girl had killed the deer. It became almost useless to proceed, and yet the chief resolved on continuing the search. A hut was erected, a fire made, and then the three men parted in search of game—one remaining near the camp on the look-out for small birds, the others going hither and thither, in the hope of falling on more noble prey. This was done for a week, during which, right and left, every place where a hut could be hid was examined: then the camp was moved a few miles farther south, and the same plan resumed.

This was continued with various fortune for some time, until one day

they found themselves camped near a large wood without provisions, weary, hungry, and cold. A council was held, and it was agreed that Mark and the Roaming Panther on the one hand, and Matonaza on the other, should start once more in chase of elk and buffalo, and that the first which met with good fortune should give the other notice.

Matonaza moved about in various directions in moody silence. The young chief had in his own mind given up all hope of finding the beloved White Swallow, whom he imagined the prey of some savage wild beast, or of Indians as ruthless. He moved along, brooding on revenge, on some terrible and sudden foray into the land of the Athapascows, and yet his eye was cast about in search of game. Presently the forest grew less dense, and the young chief soon found himself in the open air beside the vast lake already alluded to. The warrior paused, for never had he seen waters so vast. He gazed curiously around, and then followed the banks for some time: but all in vain; not a trace of game did he find. Weary and hungry, he turned his steps back towards the camp, and reached the spot where he had first come out upon the lake. He passed it, and pursued his way still further along the shore, which was frozen hard as far out as the water was shallow.

The Indian now came in sight of the fire seen by Thee-kis-ho in the morning, hitherto masked from his view by the island already alluded to. He knew this to be the signal given by his friends that they had found game, and hurried his steps. Suddenly he halted. A rabbit in its milk-white winter coat lay struggling at his feet, and yet not running away. The animal was caught in a snare made by human hands. The chief bounded like a stricken deer; his eyes flashed; and then, after killing the animal, and casting it over his shoulder, he began moving along the bank. Another and another snare fell under his notice, and then steps in the snow—those of a woman and a dog—steps of that day, of that hour!

Matonaza stood for an instant leaning on his rifle; for though an Indian and a warrior, he was a man, and young. He was not insensible to gentle emotions, and he loved the girl with all the warmth of a generous and unsophisticated heart that had never loved before. Then he looked around, his eyes glaring like those of the tiger about to spring; and he caught sight of the hut, or rather of the snow-pile which hid it. The door was clearly defined. He stood by it, he raised it: the rest has been already told.

VIII.—STRANGE EVENTS.

For some quarter of an hour they gave themselves up to the joy of this unexpected and happy meeting. The warrior then listened with charmed ears to the recital of the events which had preceded the arrival of the White Swallow at her winter camp. Surprise, pride, and satisfaction, filled the young man's heart, as each day's adventure showed how admirably the girl had conducted herself, and how fit she was to be the bride of a chief. She spoke briefly, but clearly, and the event of the day soon formed the topic of discourse. When Thee-kis-ho spoke of the flight of two men from the fire, Matonaza became much moved.

'My friends are prisoners,' he said gravely, and then bade her go on.

But the White Swallow ceased speaking, and waited to hear the narrative of her future lord and master.

The young chief reflected a moment, and asked for something to eat. But the girl had nothing but raw fish and the rabbit, and no fire.

'Ugh!' exclaimed Matonaza as he heard that she had had no fire for five or six days; 'let us go.'

The White Swallow rose, took a good supply of fish, with the rabbit, and followed the Little Snake, who led the way through the wood towards the camp where he had left his companions. All was calm and still. The lake, which had been agitated, was quiescent, and the wind had fallen. A quarter of an hour's quick walking through the forest brought them in sight of the fire. It remained untouched, as also the hut of boughs and fallen trunks that had been erected on the previous night. They at once drew the half-scattered embers together, and a few upright and transversed sticks served as a gridiron for the fish. The rabbit was also put to roast. No alarm was expected but from the lake; and an occasional glance at the water, by a walk of a dozen yards with the dog, rendered a surprise unlikely. An elk, and the guns of both Mark and the Roaming Panther, were found in the hut. The enemy had followed them so rapidly, they had no time to inquire into the spoil which might be found in the camp.

Matonaza gazed with speaking eye and affectionate mien at the young girl as she moved about preparing their meal. He smiled grimly as she offered him the meat when ready, without offering to take any herself. But he drew her on to the log beside him, and bade her eat. The White Swallow laughingly obeyed, and they ate together. It was the sweetest repast either had tasted for many a long day. When they had done, it was pitchy dark, and the young warrior at once went down to the shore, and in the cold, and ice, and snow, began to make a raft. Plenty of logs, and boughs, and withes were to be found; and in an hour Indian ingenuity had succeeded in manufacturing a very solid construction. Then both stepped into it with the three guns, leaving the dog behind.

The chief turned the somewhat awkward vessel towards the island pointed out by his dusky bride, and both propelled it, as best they could, with sticks as much like paddles as they could find. They made for the side towards the hut of the young girl, which was rocky and precipitous, and therefore safest. Their progress was extremely slow. No light of any kind was there to guide them. The island loomed up in the distance against the sky, and not a sign of life could be seen upon it.

At last it was reached, and the slender bark grated on the shore. The pair leaped on the ice, and drew the raft so far after them, as at least to prevent its floating off. They then took the rifles, and gained the land. They found themselves at the foot of lofty rocks, from which hung thick and large trees that half-concealed their height. The ascent was rugged, but not impossible; and by feeling their way with extreme caution they at last reached the summit. The wood was here dense in the extreme, and so mixed up with brushwood, as to oblige them to take

great care as they advanced with the rifles. They pushed their way through, however, a little further, and then suddenly halted.

They were within a few yards of an extensive Indian camp.

The centre of the island was a large and deep hollow, used from time immemorial as the winter residence of the tribe which now occupied it. About a hundred and fifty yards long by sixty broad, it contained thirty large huts or wigwams, so arranged, as to leave a considerable space in the centre. It was perhaps a dozen yards deep, and so overhung by trees, that whatever fire was made—and the Indians rarely make more than is necessary—never could be discovered by the smoke, which, rising in small columns, was swept by the currents of air among the dense foliage, to escape in such light vapours as were imperceptible. A large fire was now made, however, beside a rock, close below where the astonished pair stood. Round this were perhaps forty dark and fierce-looking warriors. The women stood in groups near the huts whispering.

But the captives were what they chiefly sought; and these were soon distinguished in the very centre of the council of the tribe.

A debate was going on, to which neither Mark Dalton nor the Roaming Panther seemed to pay any attention. They were on a log by themselves, and spoke in whispers.

'Listen!' said Matonaza, crouching down beside his bride in such a position as to see and hear all that passed, while he was at the summit of a path which led down to the fire.

Various opinions had apparently been uttered before their arrival. The last speaker, a fat, luxurious, greasy-looking warrior, with a nose and eye that spoke of the rum of the Yengeese, was, when they first listened, doing battle for the protection of the white man's scalp. He urged the fact, that if he were taken to the nearest fort in the spring, they would be amply repaid for their trouble, and receive both powder, ball, and shot in abundance, with plenty of fire-water, that made a poor Indian's heart glad. As for the Red-Skin, his tribe could spare him; besides, he was of no value. Let them take his scalp. A few applauded, but the rest murmured loudly, for the speaker was a notorious drunkard; and the Red-Skins, even those who occasionally give way to the suicidal madness of drink—the worst suicide, because of mind and body—despise a habitual sot.

Then up rose a warrior in the very prime of his days. He was about five-and-forty, handsome, well-made, tall, and of grave and rather melancholy mien. It was the Lightning-Arm, the renowned warrior who, taken prisoner by the English, had resisted all the temptations which ruined his fellows. He was the bravest, the wisest, the ablest chief of that day; and his renown was universal. So was his terrible cruelty, in putting to death all the white men, Dog-ribbed, and other north-western Indians, who fell in his way. This was his oration:—

'It is fifteen summers ago. The Lightning-Arm lived with his people on the borders of the Little Bear River. There was plenty of deer in the woods, and fish in the river, and the beavers were kind; they knew that their Indian brothers were poor, and plenty were found. The Lightning-Arm was happy. He stood like a tall pine in the midst of a wood, and every warrior called him chief. Yes; the Lightning-Arm was very happy.

A little bird sang in the woods, the loveliest girl of the Great Athapascow tribe, and the little bird sang beside the tall pine. Lightning-Arm called the Wild Rose his squaw. One papoose was in his wigwam, and it laughed in its father's face, and Lightning-Arm was very happy. He was a great warrior; his wife was pretty and good; he had a child lovely as the flowers of the prairie in spring. Lightning-Arm was very happy. Then came the Pale-Face traders, and bought all the Red-Skins' furs, and gave the foolish Indians fire-water. The traders went away, and the Indians were beasts: the fire-water was in their eyes, they could not see; the fire-water was in their ears, and they could not hear; the fire-water was in their heads, they could not watch. But wolves were in the woods, who knew that the Great Athapascows were as hogs, and they came down upon the camp. The Lightning-Arm had gone to show the traders how to hunt. The wolves slew all the warriors, who woke no more; they killed the Wild Rose, and they stole her child. Lightning-Arm came bounding home: he listened for two laughs—one very loud and clear, and one very little, but very sweet. The Lightning-Arm was alone, the tall pine stood naked on a stony plain. Let them die—the white man for his fire-water, the Red-Skin for his blood! He is a Dog-ribbed cur! I have spoken!

And the warrior drew his tomahawk, and awaited the words of his companions, eager to give the signal for the torments which were once more to glut his revenge. His hate for the Pale-Faces, whose drink had caused the camp to be surprised, and for the member of a tribe suspected of the foray, might be seen in every lineament. The whole circle of warriors applauded, and were about to rise, when the Little Snake and the White Swallow stood in their midst.

'My father is very sorry for the death of his squaw,' said Matonaza with profound respect for the other's grief, 'and his eyes are dim. But his eyes are open now; does he know again a little face he saw fifteen summers ago? His ears are very sharp, the girl will laugh, and her father will know her again!'

The Indians moved not, though their favourite 'ugh' escaped every throat, while the Lightning-Arm listened with undisguised astonishment.

'My brother is young,' he said, quickly recovering himself, 'and would save his friends; he gives an old warrior a young squaw for a little papoose.'

'Matonaza is no liar,' replied the other solemnly. 'His father led the foray against the Great Athapascows; he took away a little papoose for a squaw for his boy. There she stands—see!'

And the young chief held out his hand, and took from the breast of the White Swallow one of those charmed bags given by the medicine men to preserve children against evil spirits, and which, found on the neck of the girl, had been left there, all fearing to touch an amulet which in their eyes had secret powers. The older chief took a pine-knot, and held it towards the face of the young girl, examining at the same time, by an imperceptible glance, the little bag. Matonaza saw the Lightning-Arm start, and then discovered, by the working of his face and clenched hands, how intense was the struggle between his Indian stoicism and the pent-up feelings of fifteen years.

'My old eyes were dim, and I could not see my friends,' said the father in tones which no art, not even that of man's iron resolution, could make firm. 'You are welcome—ye have brought back my child!'

The three companions became at once the centre of a friendly and delighted group, who crowded round the men, with exquisite delicacy contriving to let the father slip away with his child, without attracting attention to this act, rather too full of nature and feeling to suit Indian customs. But once out of sight, the chief raised the girl in his arms, and running under the trees, reached an empty wigwam at the end of the village. A pine-knot full of resin illumined the place. He set the White Swallow down upon a mat, and looked at her. Every feature, every expression—mouth, nose, eyes, hair—all were those of the mother, not older than she was when killed. The warrior shook like a palsied man with emotion, and then clasped the girl wildly to him. She laughed faintly, bewildered as she was, and the man almost shrieked. His ears had not heard that laugh for fifteen years, and yet it had thrilled in his heart every hour; for the chief had idolised his beautiful wife, and she came to him nightly from the Happy Hunting-ground in the visions of his sleep. It was an hour before the Lightning-Arm was sufficiently composed to rejoin his fellows and the astounded women. He found a feast prepared to celebrate the happy occasion. All joined heartily in it. Mark and the Roaring Panther, who had been expecting death for hours, ate none the less heartily; while the old chief, throwing aside all his rigidity on this festive occasion, made the women join the feast, and placed the White Swallow by his side. Even the roughest warriors smiled grimly as they saw him watching every mouthful she ate, giving her the choicest morsels, and touching nothing himself.

Matonaza looked gravely, sadly on. He had saved his friends, he had found the girl a father, he had gladdened the heart of a widowed, childless chief, but he had lost a wife. It was therefore with unusual gravity that he rose to narrate the circumstances under which the parties had met. His narrative, the history of a year, was the work of two hours' speaking, during which the young chief showed all that consummate oratorical art which belongs to some of the Indians—art that, if aided by the advantages of education, would astound some civilised audiences. He spoke little of himself, much of the White Swallow, and told his story in all its details. The Great Athapascows—a distinct tribe from the Little Athapascows, the ravishers of the girl—listened with unfeigned astonishment and breathless interest. The whole story delighted all, and none more than the father. A loud murmur of applause and a huge cloud of tobacco-smoke greeted its conclusion.

'My brother is very wise—a young arm, an old head! The Lightning-Arm sees a long way. The Little Snake had said nothing, but his eyes are not silent. He would like to hear the White Swallow laugh in his wigwam!'

The young man at once warmly stated his case, his affection, his abandonment of all to seek her.

'And the White Swallow?' asked the father, quite tenderly for an Indian.

‘Matonaza is a great chief, and the White Swallow will be his squaw!’

The thing was at once settled. It was agreed that in the spring the whole party should move towards the Mabasha, to wait during the summer, when it was proposed the two tribes should unite. Matonaza answered for his people, who were too weak to stand alone, and the Great Athapascows willingly agreed to accept them. The party then retired to rest. Early on the following morning the White Swallow fetched her dog, while the whole village visited her solitary hut, which had escaped their notice only because they seldom hunted or fished in the winter months, passing them in their wigwams. Two days later, the wedding-feast took place amid universal rejoicings. Never was a happier party. The father was a changed man. He mourned the early dead; but he rejoiced over the recovered child, and was doubly pleased at seeing her doubly happy—finding a lost husband and an unknown father on the same day. The Roaming Panther carried the news to the small camp on the Mabasha; and in May the junction took place. Mark Dalton hunted with them all the summer; and when he left them in the autumn, it was with regret.

Neither the Lightning-Arm nor Matonaza ever joined in or encouraged any of the wars and forays of their race. They had suffered too much from them. The old chief ruled the counsels of his people for years, and led them to victory every time they were attacked. He lived to see children again, and to watch them grow up to manhood. He became their instructor and teacher. A devoted and earnest friendship took place between the father and the son-in-law; and in memory of the past, the White Swallow enjoyed a much happier fate than most Indian women. The chief never took another squaw: she was his first and his last; and ten years after they parted, when travelling on a mission, Mark Dalton, now governor of the Hudson's Bay Company, found his friends as happy as when he left them so long a time before. They talked over their adventures once again, and forgot not one detail; and in after-life, when speaking of his Indian experiences, and admitting all the terror and rudeness of savage life, Mark Dalton had always, by way of contrast, his story to tell of the White Swallow of Mabasha Lake.

MECHANICS' INSTITUTIONS.

ABOUT the year 1823 a general movement was made in this country in establishing institutions for the scientific education of the working-classes. While the nation had been making advances in mechanical skill and manufacturing industry, unparalleled in the history of any other country, no corresponding advance had been made in the intellectual training of the people; and while Britain had become matchless for the ingenuity and skill displayed in her machinery, yet the vast majority of the workmen engaged in its construction were ignorant of the natural laws on which they were daily and hourly acting, and of those great mechanical principles which their practical hands were constantly required under the direction of other theoretical heads to apply. This state of things arrested the attention of many of the good men of the time, who saw the importance not only to the working-men themselves, but likewise to the country and mankind at large, that the mind of the mechanic should be rendered as familiar with the principles of his trade as his hands were with their practical application. By thus educating the working-classes, there was almost a certainty that improvements would from time to time be introduced into all departments of labour. For in every occupation, whether it be the construction of a steam-engine or a watch; the building of a house or the cutting out of a hand-rail; the painting of a sign-board or the designing of a new pattern, the satisfactory execution of the work is not dependent on chance or even superior manual dexterity, but on the right application of certain unchangeable laws and principles. Though instances have occurred, and are likely to occur again, where a happy guess or a fortunate inspiration has supplied the place of scientific attainment, yet it is evidently more reasonable to expect improvements to spring from knowledge than from lucky thoughts. It is also more in accordance with facts, inasmuch as every invention, if not entirely the result of scientific knowledge, could never have been brought into working order and perfected otherwise. Many examples were at the time referred to in support of this view. The names associated with the invention of the steam-engine, for instance, are those of men distinguished much more for scientific knowledge than for manual skill: the Marquis of Worcester, a prisoner in the Tower of London, devoted to philosophical pursuits; Dennis Papin, an exile from France, teaching mathematics in Germany; Savery, a retired English officer; Newcomen, an ironmonger of Newcastle; and James

Watt, a philosophical instrument-maker of good education. On the other hand, the mistakes made, and the heavy expenses incurred, during the labours of those gifted with natural mechanical ability, undirected by education, were farther proofs of the importance of joining scientific knowledge to manual dexterity and mental vigour.' For example, it was only the perseverance of a determined mind that enabled Thomas Highs, the reedmaker of Leigh, in Lancashire, to overcome his own want of scientific knowledge, and that led him ultimately to the invention of the spinning-jenny and the throstle; but this want cost him long months of anxious thought, and tried his patience to such a degree that, once in a fit of disgust and despair, he flung his rude model out of his garret window. In no less conspicuous a manner were the energies and resources of Richard Arkwright's mind misdirected, until he came into contact with men who possessed those scientific acquirements to which the first great English cotton-spinner could lay no claim. To afford means for the attainment of this scientific knowledge by the artisan-classes, and thereby to promote mechanical inventions; to open up a path for the development of natural ability, and to improve generally the intellectual culture of the people, were the leading objects of the promoters of education at this time; and many advantages were expected to result to the community 'from adding to dexterity of hand and ingenuity of head a knowledge of the scientific principles which are the foundation of every mechanical art.'

Nevertheless, it would have been strange if such proposals had met with universal approval and support. There are always men at every period ready to characterise every new scheme as Utopian, and to regard every innovation on established custom as dangerous. Accordingly, it is not surprising to find that objections of all kinds were urged; that the proposals were often treated with ridicule; and that one gentleman, once chief magistrate of Glasgow, went so far as to declare that 'science and learning, if universally diffused, would speedily overturn the best-constituted government on earth.'

These institutions were entirely new: they were not established either to supplant or to supplement others that existed. For at that time the working-classes did not possess the same facilities as now, either for physical or mental improvement. In London, if a working-man wished to read a newspaper or borrow a book, almost the only places accessible to him were the public-house, where he must drink as well as read; or an insignificant circulating library, where he would seldom find other works than novels. The library of the British Museum was to him practically closed, and he could seldom make use of the other public libraries of London. He might occasionally pick up at a book-stall or an auction some good work for a small sum, or, by combining with others, obtain a private perusal of a newspaper not long after its publication; but he could not, as at present, purchase for an equally small sum good 'reprints of standard authors,' nor by paying a few coppers get access to the leading papers of the day, in addition to 'a cup of coffee and a slice.' Occasionally he might procure admission to a scientific lecture; but it was a luxury not to be often indulged in, and instruction in any department of knowledge was to be had only from private teachers at a high charge. There were no temperance societies to promote social intercourse without degrading it;

few places of public amusement but theatres; there were few steamboats on the river; no railways to facilitate cheap excursions into the country; the postage of letters was so high as to prevent all except necessary correspondence; and cheap periodicals did not exist. In the provincial towns the intellectual resources of working-men were still more scanty. A travelling lecturer would occasionally exhibit a model of a steam-engine, burn phosphorus in oxygen, or give shocks from a galvanic battery, and afford to the astonished audience topics of conversation for many a day. But such entertainments were participated in by the few; the many were found immersed in political clubs or trade combinations, or seeking enjoyment in beer and tobacco, cock-fighting, pigeon-flying, wrestling, or pugilism. The laws of health were little known or attended to either in private habits or public buildings; no means for recreation were provided: Manchester was without its parks; Derby had no arboretum; and Liverpool no baths and washhouses.

Yet amid all this, many working-men were quietly engaged in scientific pursuits. Occasionally a professor of mathematics would be chosen from among the weavers of Spitalfields, and professors of botany would go down to Lancashire to consult factory operatives on the virtues and habits of plants. Societies existed here and there, small in numbers, but earnest in intentions, for the cultivation of various sciences. From these have from time to time sprung some remarkable men; but, generally speaking, they were quite isolated in their labours: few knew anything of them, and their members were looked on with curiosity, sometimes with pity, and seldom with envy, by their more ignorant townsmen.

In some places, however, more important societies had sprung up. The Andersonian university had existed in Glasgow since the end of last century, and to this had been attached a mechanics' class, where Dr Birkbeck for three successive seasons had the gratification of lecturing to 500 mechanics' on scientific subjects connected with their occupations. This was continued by the successors of that gentleman for about eighteen years, until the mechanics determined on establishing an independent institution. 'Let us build,' said they, in forcible, though figurative language, 'an altar to science; let us raise a ladder to those heavens where Boyle, and Newton, and Franklin sit shrouded and enshrined in the halo of philosophical glory.' This 'altar to science' was erected in 1821, and still exists in Hanover Street, Glasgow, with as many devout and worthy worshippers as ever. In Edinburgh the efforts of Mr Leonard Horner, and other gentlemen, had been instrumental in the establishment in 1821 of the School of Arts. The object of these two institutions was to give scientific instruction to the working-classes by means of lectures, a library, and a collection of models and apparatus. The success of these institutions, and the fact that they had in a great measure grown gradually out of the wants, and by the exertions of the working-men themselves, gave rise to hopes that in every large town in the kingdom the same success would attend the formation of similar associations. Thus in 1823 the views of the friends of education in England on this subject were trebly fortified; first by the successful example of Scotland; second, by the fact, more important than it appears, that such institutions would not displace others now existing, nor interfere

with 'vested interests;' and third, by the opinion held by many eminent and influential men, that the education of the working-classes would be of great advantage to themselves and the country.

London set the example to England in the work. The proposals for establishing a London Mechanics' Institution were first made in the 'Mechanics' Magazine' of 11th October 1823; and on Tuesday, 11th November, exactly a month afterwards, a public meeting on the subject was held in the large room of the Crown and Anchor Tavern in the Strand. There were more than two thousand persons present, the great majority of whom were working-men. There was not much display of eloquence; the speeches were short, and to the purpose, and were made both by employers and employed; by a member of parliament, Mr Cobbett; a sheriff, Sir Peter Laurie; and an alderman, Mr Key; by engineers fresh from the complications of machinery, and by barristers fresh from the complications of law; by printers and painters; and by one operative who read his speech, and called himself 'an unlettered son of Vulcan, just emerged from the smoke of a forge.' The chair was filled by Dr Birkbeck, and letters of apology for non-attendance, but approving of the objects of the meeting, were received; among others, from 'Henry Brougham, Esq. M.P., enclosing £20;' and from two men very dissimilar in their pursuits and feelings, both of whom are now no more—'Mr Jeremy Bentham, and David Wilkie, R.A.' The meeting was harmonious and enthusiastic, and all the resolutions were passed unanimously. These declared that the establishment of institutions for the instruction of mechanics at a cheap rate in the principles of the arts they practise, as well as in all other branches of useful knowledge, is calculated to improve extensively their habits and condition; to advance the arts and sciences; and to add largely to the power, resources, and prosperity of the country. The charge was fixed not to exceed a guinea per annum, and among the objects contemplated were the establishment of lectureships on the different arts and sciences; a library of reference and circulation; a reading-room; a museum of models; a school of design, and an experimental workshop and laboratory, provided with all necessary instruments and apparatus. The institution was to be entirely or chiefly supported and managed by mechanics themselves. On this point Mr Brougham's opinion, as expressed in his letter read to the meeting, was most explicit. He said: 'The plan will prosper in exact proportion to the interest which the mechanics themselves take in its detail. It is for their benefit, and ought to be left in their hands as soon as possible after it is begun.' And Mr Cobbett agreed with Mr Brougham. 'If they allowed other management to interfere,' he said, 'men would soon be found who would put the mechanics on one side, and make use of them only as tools.' To defray the first cost a subscription was opened, and ere the meeting terminated £150 had been received, and the names of nearly 500 members enrolled. The leading newspapers reported the proceedings, and approved of the institution. The 'Times' described it as 'an establishment which would not fail, if properly conducted, to be useful both to artificers and the arts: to the former in substituting more rational pursuits in their hours of relaxation than those to which they are driven at present; and to the latter in eliciting a vast quantity of practical talent which now lies

dormant, and in treasuring up for the benefit of the public a number of valuable discoveries which now perish with the individual, for the want of a vehicle and a record, both of which might be furnished by such an institution.' The 'Morning Chronicle' not only advocated the cause, but contributed 120 guineas towards the funds.

Thus, amid the cheers of 2000 enthusiastic mechanics, the good wishes of men whose great names will live for ever in their country's history, and the loud approval of the public press—with a flourishing exchequer and a long muster-roll of members—was the London Mechanics' Institution evoked into being.

The train was fired: in every large provincial town in England similar institutions were established. On the 8th of July 1824, Lord Brougham said at a public meeting in London—'Scarcely three days ever elapse without my receiving a communication of the establishment of some new Mechanics' Institution. At the beginning of May last I made a calculation that since the preceding July I had received accounts of no less than thirty-three being established;' and the Rev. Edward Irving, in a sermon preached in 1825, said that Infants' Schools and Mechanics' Institutions 'have arisen as by enchantment, and spread themselves over the land.' Thus when the second quarter of the nineteenth century was entered on, Birmingham, Liverpool, Leeds, Manchester, Newcastle, Sheffield, the Staffordshire Potteries, Bolton, Bristol, Dundee, and many other large towns, had each an establishment, sometimes called a Mechanics' Institution, sometimes a School of Arts, for the scientific education of the working-classes.* Gradually the smaller towns followed the example, and in

* It is instructive to know the state of these institutions in 1850, after a quarter of a century's existence:—

In *Birmingham* the institution, after struggling against many obstacles, was so badly supported that it had to be given up in 1842. It was followed by a Polytechnic Institution, which has succeeded much better, and now numbers about 700 members. In the same town, a Literary and Philosophical Society, intended for the middle classes chiefly, had to be closed in 1849 from want of adequate support.

In *Liverpool* the institution has outgrown the ideas of its founders, inasmuch as there are now connected with it day-schools, attended by nearly a thousand pupils. The part, however, intended for the education of the working-classes is now in such a state that, after an expenditure of about £25,000 in providing and furnishing a building, &c. the directors are appealing to the public for additional support. Other institutions of a somewhat similar nature have been established in the town, the principal of these being the Collegiate, the Sunday School, the Church of England, the Northern Mechanics, and the Tuckerman, Institutes, and the Roscoe Club.

In *Leeds* the institution was, in 1842, amalgamated with a literary society, and it has now nearly 2000 members, a day-school, and attached to it is a government school of design.

The *Manchester* institution, has also about 2000 members, and a female day-school. Six similar institutions have been established in different parts of Manchester.

In *Newcastle* the number of members is nearly 1000, and there is one institution at Gateshead, on the south side of the Tyne.

At *Sheffield* an amalgamation with another institution recently took place, and a new building was opened with great *éclat* in 1849.

The institution in the *Potteries* 'is carried on under great disadvantages,' and has only 120 members.

In *Bolton*, 'out of a population amounting in the borough to nearly 60,000, there are only about 300 who consider it worth their while to become members of this institution.'—*Directors' Report*, 1849.

At *Bristol* the result was the same as at Birmingham. The Mechanics' Institu-

every succeeding year new institutions have sprung up in different parts of the country. In 1849 three were established in the county of Lancaster alone. The London institution was to a great extent founded on the model of those in Edinburgh and Glasgow; and those in the larger towns of England were more or less copies of that in London. Year after year, as their character became changed, the younger institutions adopted similar modifications; and in the framing of rules, and in general arrangements, very few went back to the primitive models in Edinburgh and Glasgow.

* THE GENERAL HISTORY of all these institutions presents the same leading features. In large towns they have usually sprung from the exertions and wishes, not so much of the working-classes, as of the more wealthy: the energy and enthusiasm that originated them carried them on for a time; but as the novelty wore off, the members and revenue decreased, modifications of plans had to be adopted, new features introduced, and radical changes made. If these proved acceptable to the public, the institution flourished; if not, it decayed: if the original idea of giving scientific education only were strictly carried out, the number of members was small; while if amusement took the place of study, the institution lived, 'in jeopardy every hour,' from the fickle and changing taste for amusement on the part of the public. In short, those that preserved their scientific character were often badly attended, while others obtained an apparent prosperity by placing Apollo in the seat of Minerva.

In small towns, strange to say, they had often better success. In a new manufacturing village, for example, there were always some young men with literary tastes. They would meet together, and form a 'Mutual Improvement Society;' then they would read essays, and discuss the great subjects on which young orators usually try their strength: perhaps a class for mutual instruction in some subject would be formed. The society and its proceedings became more and more public, and after careful nursing of this kind a meeting would be held; some distinguished men would attend and speak amid 'great applause;' a report 'be read and adopted with enthusiastic cheering;' and the old society would stand forth as a young, vigorous, public institution. In such cases there was less chance of failure or fluctuation, inasmuch as the establishment had grown gradually and steadily, instead of springing into maturity at once.

THE RESULT is, that amid all this changing of views and plans, the constant establishment of new institutions, and the gradual decay of some among the old, there are now in England alone about 400 such institutions, which, with the help of more than half a million volumes of facts and fictions, poetry and prose—of about 4000 lectures given every year on all conceivable subjects—of classes for instruction, from the English alphabet to the Greek classics, and from the multiplication table to the differential calculus—of reading and news-rooms, 'supplied with all

tion' to be given up, and was succeeded by the Athenæum, now numbering about 1000 members.

In 1850 the Watt Institution, founded in 1824, has (February 1850) 'been closed for six months in consequence of pecuniary embarrassments, but there is reasonable expectation of its being re-opened soon.'

the leading newspapers and other periodicals of the day, of great annual soirées, where lawyers and divines, merchants and manufacturers, lords and commons, proclaim the advantages of knowledge and the blessings of education—are endeavouring, with badly-filled classrooms, and more loud-sounding patronage than actual support, to give instruction of some kind or other to the public in general, and their hundred thousand members in particular.* No proper estimate can be formed of the good influences of all this. It is the misfortune of most useful institutions that their beneficial results seldom come prominently before the public. They are often confined to narrow private circles, where their influence is not the less because it is hidden from the public eye. These hundred thousand members must be made better both in intellect and morals by their connection with these establishments, for no one can read such books as their libraries contain, or listen to the public lectures, or read the best periodical works of the day, or attend evening classes, or listen to great sentiments uttered by great men, without learning something, and feeling better than before.

THE CONDITION in which nearly all these institutions are now found is very different from what the views expressed at their formation in 1823-4-5 would lead us to expect. Though still generally retaining the name 'Mechanics,' they have never been attributed to any considerable extent by that class. A visit to any one institution will show at once that the members generally do not belong to the working-classes. In the library will be found not many mechanics taking out scientific books, but young men, clerks, shopkeepers, apprentices, &c. inquiring for works of a lighter kind; in the school the same class will be found, but not always mechanics, studying the principles of the arts they practise; in the reading and lecture-rooms very few fustian jackets are to be seen, scarcely one.

* This statement must necessarily be received as an approximation to the truth. It is impossible, from existing materials, to make up accurate statistics of all the institutions. The most complete statements are found in the reports of the various unions that exist in the midland and the northern counties. Even in these reports the information is often incomplete, and in the various districts embraced there are many institutions not in connection with the unions. The following table, made up from such reports, will show that an average to each institution of 250 members and 1500 volumes in the libraries is tolerably correct:—

Counties.	Institutions.	Members.	Volumes.
Chester, -	- 8	1,721	11,619
Cumberland, -	- 4	828	4,793
Derby, -	- 5	1,123	7,619
Durham, -	- 8	2,011	12,228
Lancaster, -	- 44	12,405	87,532
Leicester, -	- 1	549	3,060
Lincoln, -	- 4	834	2,646
Northampton, -	- 1	590	7,600
Northumberland, -	- 5	1,543	13,967
Nottingham, -	- 2	1,070	6,483
Stafford, -	- 4	640	5,670
Warwick, -	- 1	648	3,400
Westmoreland, -	- 1	126	1,900
York, -	66	13,471	61,155
	<hr/> 154	<hr/> 37,619	<hr/> 236,772
Average,	- 1	244	1,537

'son of Vulcan, just emerged from the smoke of a forge;' but those present bear unmistakable traces of belonging to a very different class, a class usually considered in the eyes of the world to rank above workmen in the social scale. A perusal of the reports leaves the same impression on the mind:—'The working-classes generally do not take an interest in and support the institution;' 'it has long been a source of great regret to the directors that so few of the mechanics and working-classes generally availed themselves of its advantages;' 'there is a want of interest on the part of the working-classes:' these are some of the expressions of the managers on this subject, and nearly all the others are to the same effect. To come to figures, it has been found from returns supplied by thirty-two of the principal institutions in Lancashire and Cheshire, that in only four do the working-classes attend in considerable numbers, and these four are established in mere villages. Again, in only three out of twenty-one institutions in the Midland Counties were the members composed chiefly of the working-classes. In other two where the occupations of the members were registered, it appeared that of 718, 250 were factory operatives and mechanics, and the remainder consisted of professional men, merchants, shopkeepers, clerks, warehousemen, schoolboys, &c. There is perhaps no town that shows more strikingly the little interest that mechanics take in the institutions than the railway town of Crewe, on the London and North-Western line in Cheshire. The population of this place is about 4000, consisting almost exclusively of about 800 mechanics employed at the railway works, their families, and the shopkeepers and others who supply their wants. The institution in this town numbers a little more than 100 members, or about one-eighth of the total number of hands employed. A large and commodious building was erected by the railway company, and presented to the mechanics for the use of the institution; and the company and its officers render assistance in many other ways. And yet the result is what has been stated. To enter into details regarding other parts of the country would be merely a repetition of what has already been written. The reports of directors, and the statements of all who have inquired into the subject, establish the fact that, generally speaking, mechanics do *not* support Mechanics' Institutions.

THE CAUSES of this may perhaps be divided between the mechanics and the institution: arising from prejudice and indifference on the one part, and inefficiency and bad management on the other. In many places the employers of large numbers of workmen have taken an active interest in the institution, have spent time and money in its establishment, and exerted themselves to induce their workpeople to attend. But this very circumstance has proved ultimately disadvantageous, for many of the workmen considered that the masters had some secret motive in their conduct; that they had certain ends of their own to serve; and that there was some mysterious connection that could only be vaguely explained between the institution and 'wages.' Absurd as these ideas were, they did exist, and institutions have suffered and are now suffering from their prevalence. In some places where the institutions were attached to factories or other public works, these ideas took even a more offensive form. The was not only considered to have some sinister object in view,

but every workman who became a subscriber was regarded as actuated more by the desire of pleasing the master than of acquiring useful knowledge. Those who entertained such ideas were 'not going to be such sycophants;' and to show their independence they stayed away. Again, with the working-classes of this country, in general, social and political institutions attract greater interest than those connected with education. Take at random any score of working-men, and it will almost invariably be found that they would sooner attend a political meeting, to demand what they consider their 'rights,' than a scientific lecture; that they would rather read a party newspaper than a calm historical narrative; and that they would sooner invest money in a benefit club or building society than in a Mechanics' Institution.* These feelings exist in them as a natural instinct; and unless when led astray by prejudice, or deceived by designing men, they are feelings worthy of all encouragement. The misfortune is that in many cases they are all-absorbing, and education is neglected. From every institution all subjects of a sectarian or a party kind are very properly excluded, though occasionally a lecturer will, without absolutely breaking this law, give a tolerably clear indication of his opinions on the questions of the day; and though grave, prudent men shake their heads, and speak of 'injudicious conduct,' yet the great majority of the audience are pleased, and such lectures are always better attended than those of a purely scientific kind. This circumstance is so apparent, that in some places it has become a subject of grave consideration whether or not the rule should be abolished. But fortunately such counsels have not prevailed. There can be no doubt that every man feels more strongly and takes more interest in politics and religion than in literature and science—it is well for mankind that it is so—and if these institutions were either, on the one hand, to be opened to indiscriminate political and religious discussions, or on the other to be attached to any party or sect, it is highly probable that, so far as members and money are concerned, they would be more prosperous than now. But such prosperity would be bought at a ruinous price; and it is to be hoped that never, under any circumstances, whether tempted by alliance with the prejudices of the people, or goaded by sectarian rivalry, will their directors and members relinquish that principle, which is their greatest glory, of being entirely independent of political party or religious sect. By steadily adhering to this principle many of the institutions have suffered in the estimation of those well-meaning but blindly-zealous men who will not assist in the dissemination of knowledge unless that knowledge is accompanied by, and interwoven with, certain religious views and sentiments. This class was much more numerous at the first establishment of these institutions, when the nature of their objects was more liable to misapprehension; but it has gradually diminished as practical results have shown that the anticipation of bad effects was quite groundless. Though

* Various attempts have been made to raise money by shares for the erection of Mechanics' Institutions, each share being usually £1; but very few of these have ever been taken by mechanics. The building for one institution in Lancashire cost about £700; it was expected that about eight hundred shares would be disposed of, but scarcely a hundred were taken. About £300 were obtained by donations, and £250 were advanced at 4 per cent. interest as a mortgage, by a club in the same town, the members of which were almost exclusively working-men.

it cannot be said that the management and support of these establishments are altogether untinged by the party feelings that prevail in each locality, yet, regarded generally, it will be found that they include among their friends and supporters men of all classes, sects, and parties in the country. Wherever sectarian feeling is exhibited in opposition, it is usually in obscure districts and by obscure men, while by those in high places, from whom society to some extent may be said to take its tone, friendly feelings have been often expressed, and ready assistance repeatedly given. In several of the dioceses of England even the highest church dignitaries often show their sympathy with the objects of these institutions, not only by donations of money and books, but also by, what is perhaps of more value, the delivery of lectures and of addresses at public meetings; and as a general rule, it will be found that the institutions established in cathedral towns, such as Chester, York, Ripon, &c. are among the most prosperous in the kingdom. In many towns where strong opinions are held as to the necessity of joining religious and general education, other institutions founded on that principle have been established, but scarcely differing in other respects from the old. In one or two cases an attempt has been made to impose a kind of religious test on the members, but without success.

The disposition on the part of the working-classes to devote more time and money to friendly societies, &c. than to educational institutions, has led to the suggestion that not only such societies, but others for temperance and savings' banks, should be connected with Mechanics' Institutions. There can be no doubt that intemperance and waste are great obstacles to the spread of education; and when a part at least of this intemperance has been removed, it is but supplying a necessary want to replace it by the means of instruction. Still the policy of connecting Mechanics' Institutions so closely with these other societies is at least questionable. It is true that education is intimately connected with habits of temperance, frugality, prudence, and forethought; and to surround an institution for the former with societies for promoting the latter seems to be both fitting and natural. But practically there is every probability that among so many objects of attention some would be neglected, and, undoubtedly, the education would be the first to suffer, for its claims are not so urgent, nor its benefits so immediate and perceptible, as those of the others. All these societies flourish best when left to their own free action; and while each should afford all the facilities in its power to the rest, yet if it is evident that this is done merely to promote its own objects, no good results will ensue. Every society should stand on its own basis: let an educational institution be for education, a temperance hall for temperance, a savings' bank for savings, a building club for building; but let not one be used as a decoy to the other. This indirect mode of obtaining members to a Mechanics' Institution seldom succeeds, for the public generally understand it well.

But the prejudices that exist among a portion of the working-classes, and their propensity towards political agitation rather than quiet useful study, account less for the small number of mechanics attending such institutions than does the utter indifference to the subject that is by many displayed. The great majority of ignorant people are quite unconscious of their ignorance; and it is idle to expect that of their own accord they will seek that of which they do not feel the want. Opposition may be

overcome or lived down; prejudices may be removed or rendered harmless; but apathy and indifference are much more difficult to deal with. Of the pleasures attendant on the acquisition of knowledge large numbers have no conception, and of the use of science in the construction of the monuments of industry around them their ideas are vague and erroneous. Other wants than the want of education claim their care, and unfortunately in every large town such wants are too effectually supplied. In concert-rooms, misnamed 'free,' their natural taste for music is gratified by listening to songs, not always of the purest kind, sung amid an atmosphere vitiated by tobacco smoke, and before an audience whose faculties are not improved by the 'refreshments' they have swallowed. Their idea of the charms of literature is procured from the worst class of cheap publications; their notions of great men and heroic deeds are founded on the histories of Dick Turpin or Jack Sheppard; and man's life appears to them to be useless and uninteresting unless it is filled with mystery and crime, guilt and punishment. An exhibition of 'Dissolving Views' is the highest scientific treat they have ever had; and the pictures in a public-house or a printseller's window the principal works of art they have seen. Wedded as this class of people are to such amusements, it would seem almost hopeless to expect that they can be induced to leave them, and enter on the quiet, steady, and grave pursuit of knowledge in a Mechanics' Institution. Is it to be supposed that a young man, too soon become his own master, with imperfect early education, or perhaps none at all, will of his own accord sit down in an evening class after a hard day's labour, and follow the instructions of his teacher in the merest rudiments of knowledge, when in the next street there is open to him some misnamed 'Temple of the Muses,' where, by spending a few coppers, he can pass an evening with none of that restraint imposed in a class-room, listening to music, or gazing at the postures of a dancer, and at the same time indulging in 'his pipe and his pot?' The writer has known cases where an employer has actually paid the subscription of some of his apprentices to Mechanics' Institutions without being able to induce them to attend more than a few times at the outset; and of other employers who have given some of their workpeople money to purchase admission to instructive lectures, which was spent, not at the lecture, but at the public-house. Every intelligent working-man laments the existence of these 'free concert-rooms;' and laments, on the other hand, that Mechanics' Institutions do not adapt themselves more to objects of amusement, and thus act as counter attractions. The general desire for such amusements instead of education would seem to confirm a declaration made not long ago by Lord Brougham, that the great majority of the people of this country do not really want to be *educated*.

It is not alone among the working-classes that such desires prevail: they exist among all classes; and the directors of many of the institutions, finding that neither mechanics nor others would attend in great numbers to receive instruction, have determined to go with the stream, and have introduced many plans that were never contemplated when these institutions were founded, and which are quite out of place in an educational establishment. The plea on which they were admitted usually was, that people *must* have amusement; and if they do not get it at the Mechanics' Institution they will go to worse places; besides, such plans are profitable, whereas

it is very difficult under present arrangements to obtain from the educational part of the institution sufficient revenue to defray its expenditure. Accordingly cheap concerts, soirées, pleasure excursions, and balls were introduced; facilities afforded for draughts, chess, skittles, and other games; dramatic readings, recitations, and such entertainments given. Of these more will be said in detail hereafter; at present, it is sufficient to state that such plans seldom or never succeeded in drawing more mechanics to the institution: those working-men really desirous of knowledge were repelled rather than attracted, and the attendance of others at those places whose attractions were now to be rivalled was not perceptibly diminished. But such plans succeeded for a time—large numbers attended, principally of the middle class; money was made so long as the novelty could be kept up; but when it passed away, the institution was in a worse position than before: it had not gained more mechanics, and it had lost its character as an educational establishment.

Among the reasons given by mechanics why they do not support these institutions is the *expense*. The objection is not so much to the absolute amount as to the mode in which it has to be paid. To become a member it is necessary to pay in advance for a certain period, which in general is three months, and in some instances a whole year. Though the highest annual subscription is seldom more than a guinea, and the average rate is from 8s. to 10s., yet to those who receive wages weekly the payment of a sum for a year, or even a quarter, seems to be running a great risk, and the sum itself appears very formidable. For the uncertainty of employment in many towns is so great, and the chances of having to remove from place to place so numerous, that very few workmen when paying a year's or a quarter's subscription can calculate on remaining until the time has expired; and as other wants are more pressing, the deliberation on the subject often results in the determination not to subscribe. To meet such cases many changes have been introduced in the mode of receiving subscriptions. In some instances they are paid monthly, in others weekly, and in a few a charge is made for every attendance. The tendency of all such changes has necessarily been to reduce the educational efficiency of the institutions, by substituting the temporary for the permanent, and by giving facility to those who are deterred by its first difficulties from prosecuting study in a persevering spirit to relinquish the attempt altogether.

The subscriptions generally have been fixed at too small a sum. The total revenue, for example, of fifty-six institutions in Lancashire and Cheshire is about £13,000, or not so much as £250 per annum on an average to each. In other parts of the country the average is even less, as in the above statement are included the institutions of Manchester and Liverpool, the largest in the kingdom. With this small revenue have to be defrayed the salaries of the officers and teachers employed; the cost of new books, periodicals, newspapers, and lectures; charges for rent, printing, stationery, &c. It is impossible, with such an income, to keep up a really efficient educational establishment, and consequently the directors have to depend to a considerable extent on the gratuitous services of officers, teachers, and lecturers, and to look to donations as one source of the income of the library. But much even of this small income is procured from the subscriptions of those who never avail themselves of the advan-

tages of the institution, and thus with honorary services and honorary subscriptions the institution comes to be regarded as to some extent of a charitable kind. This has a bad effect in two ways: honorary services, as a general rule, are never so valuable as those which are paid for; hence many join the institution expecting better things than they receive, and accordingly retire disappointed, while many others refuse to join an institution with which the idea of charity is in any way associated. The same rules that hold good in the direction of financial affairs in commerce are equally applicable to the financial affairs of these institutions. Books and newspapers, teachers and lecturers, have all, so to speak, a certain marketable value; and if a scale of charges be adopted so low as to prevent the purchase of these in sufficient quantity and of good quality, the result will be similar to that of an insurance company insuring at too low premiums, aggravated in the case of the Mechanics' Institution with having no capital on which to fall back. Much higher charges would cheerfully be paid for a higher kind of instruction. Several institutions have found it necessary to increase their rates of subscription; but unless this is followed by active steps on the part of the directors to improve the various departments, and to get rid of the idea of charity, such change had better not be made at all.

Again, in some towns the local position of the institution is very inconvenient for the working-classes. This cause operates more seriously than would at first sight appear. In some places the institution can only be reached by a walk of two or three miles, which, going and returning, will occupy at least an hour and a-half. Suppose a mechanic to leave work at six o'clock in the evening: allow an hour for him to reach home, to clean himself, and to take tea, it would be nearly eight ere he could reach the institution; and supposing that he spent an hour in study there, it would be perhaps ten ere he regained his home. No man with a wife and family could do this regularly without neglecting his domestic duties; and it is absurd to expect young men to do this night after night, in all kinds of weather, and regardless of the numerous temptations that beset them on every side to enjoy themselves elsewhere. It is true that there are many examples of persons overcoming all such obstacles, and engaging successfully in the 'pursuit of knowledge under difficulties,' but these are exceptions; and though to them Mechanics' Institutions might prove of great assistance, yet they would succeed irrespective of such helps. It is for men in the mass that all public institutions are intended: genius will always follow a path of its own.

From the circumstance that mechanics generally do not *support* these institutions, it necessarily follows that mechanics do not *manage* them. The opinions of Lord Brougham and Mr Cobbett on their management have already been quoted. Their other influential promoters held the same views: Lord Byron thus expressed his sentiments on the subject:— 'Unless all the offices in such an institution are filled with real practical mechanics, the working-classes will soon find themselves deceived. If they permit any but mechanics to have the direction of their affairs, they will soon become the tools of others. The real working-man will soon be ousted, and his more cunning pretended friends will take possession, and reap all the benefits.' Had mechanics been the principal supporters of

these institutions, the management would undoubtedly have come into their hands; for in almost every institution the rules are so framed that a majority of the members can elect as directors whomsoever they please. Where a building has been erected, and property collected, it is usual and proper that a certain number of the managers should be elected from the trustees; but in the majority of cases these take no active part in the business, and only act as a check on any schemes that would tend to pervert the institution from its original purpose. There can be no doubt of the soundness of such views of management as were expressed by Lord Brougham; but if mechanics will not join the institutions in large numbers, it is manifestly unfair that the management should be vested in the hands of a particular class chosen from among a small minority of the members.

If the name '*Mechanics*' gives an erroneous idea of the class by whom these institutions are supported, no less erroneous is the idea it gives of the SUBJECTS WHICH ARE TAUGHT. It was intended to establish scientific lectureships, through which thorough and systematic knowledge could be communicated to artisans in the principles of their trades. Such lectures were commenced and carried on for a time with success. The '*Morning Chronicle*,' in April 1824, thus spoke of lectures on chemistry delivered at the London Institution:—'The sight of 800 or 900 artificers thus collecting, after their daily toils are over, to listen to the voice of science, is something new in this metropolis, and marks an era in the history of its population that future historians will dwell on with pride. The change which is indicated in the manners of our people by their hastening in the evening to attend scientific lectures must be pregnant with great future improvement.' A writer in the '*Mechanics*' Magazine,' speaking of the same lectures, said—'Mr Brougham is almost always present, encouraging by his own deep attention to the lectures the attention of others. On Wednesday night he was accompanied by Mr Dumont from Geneva, a gentleman well known in the literary world as the editor of several of Mr Bentham's treatises.' In other places long courses on scientific subjects were attended by very large audiences. Ten '*Lectures on Chemistry*;' six on '*Plaster and Wax-Casting, Modelling, &c.*;' ten on '*Hydrostatics and Hydraulics*;' nine on '*Certain Parts of Physical Science*;' six on '*the Steam-engine*;' twelve on '*Practical Mechanics*;' eight on '*Astronomy*;' eight on '*the Structure and History of the Articulated and Molluscan Classes of Animals*;' eight on '*Physiology*;' twelve on '*Geology*;' and thirteen on '*Political Economy*, which have been presented to the Institution by Henry, Lord Brougham and Vaux, Lord High Chancellor of Great Britain'—such are the titles of some of the early courses of lectures given at these institutions. Though they might not follow each other in such a way that each was a preparation to its successor, and though they were not always specially adapted and applied to particular trades and professions, yet the length of each course was such, that a very fair outline of the subject was given, and the minds of the hearers placed in a proper position for farther study. Besides, the lectures were all by professional men, who had completely mastered their subjects; not such tyros in science and amateurs in lecturing as are found in profusion now. Lectureships, unfortunately, were not established, and no permanence or

system was imparted to the arrangements. In Edinburgh and Glasgow it was different: there the system of permanent lectureships on various subjects, with which the institutions commenced, is still adhered to; matriculation tickets and diplomas are issued; and, in fact, the establishment is really and truly a college for working-men. But generally the plan adopted was that above described. Its success at the outset was very great. It brought before the public, by means of clear and accurate verbal explanation, brilliant experiments, and excellent models, a vast amount of scientific information, which it was almost impossible otherwise to procure. The wonderful workmanship of the steam-engine; the strange, and, as it appeared then, almost miraculous power of the locomotive; the supernatural feats of electricity; the glorious mechanism of the heavens; the dark secrets of nature, and the principles of the wealth of nations, were clearly unfolded to a public from whom they had hitherto been hidden, and who could obtain a knowledge of them only within the walls of a university, or in the pages of expensive, and not always easily-comprehended books. It was not strange that when the veil of science was withdrawn, people should have crowded to gaze in wonder; and it would now seem as if such popular lectures had been necessary to prepare the public for the right and efficient use of the scientific improvements that have since been introduced. For it must be borne in mind, that those who then looked on the model of a locomotive engine as a toy, are now travelling by its aid at a speed of from twenty to sixty miles an hour; and those by whom electricity was regarded as a supernatural force, are now making it carry very natural messages; while others who were amazed at the discovery of Uranus by the telescope of Herschel, have now scarcely ceased to discuss the comparative claims of Adams and Leverrier to the discovery, by mathematical calculation, of the planet Neptune.

But this system soon underwent a change. The want of permanent lectureships prevented the collection of audiences interested in particular subjects, and anxious to study them thoroughly. The members generally tired of the same subjects, of the repetition of the same facts, and a recurrence to the same experiments and illustrations. Novelty had to be introduced; the number of scientific lectures became less, and the courses not so long. Literary and musical subjects now appear; and among them we find four lectures on 'the Natural History of Mythology,' eight 'Analytical and Illustrative of Shakspeare's Principal Tragic Characters,' four on 'English Vocal Harmony,' four on 'the Church Music of Italy,' six on 'British India,' six on 'the Drama,' two on 'Irish Minstrelsy,' and four on 'the Poets of the Guelphic Era.' At first these musical lectures were somewhat connected: the lecturer attempted to give a complete view of the productions of a period, or the works of a class of composers; the illustrations being really what their name implied, and occupying a secondary position in the lecture. But it was soon found that the illustrations were all that the audience cared for; and accordingly the lecture degenerated into an 'entertainment;' a few anecdotes being thrown in between the songs to afford some rest to the vocalist. To call such entertainments lectures on music would be as absurd as to call an exhibition by the magic-lantern of views of the planets, alternating with grotesque figures, a lecture on astronomy. But this alteration in the lecturing system involved another

evil. Scientific subjects were not altogether discarded, but the time in which they were to be treated was shortened, and hence attempts, which could never succeed, were made to give in one or two lectures views of the most comprehensive subjects. Again, the sum that could be expended on lectures was so small that very few could be paid for, and such gratuitous lectures as offered were usually accepted. The subjects of these lectures of course were chosen by those who offered them, and an extraordinary variety was thus constantly exhibited in the lecture list.

The tastes of the public and the management of committees have accordingly produced this result—that of a thousand lectures recently delivered at forty-three institutions, more than half (572) were on literary subjects; about one-third (340) on scientific; and eighty-eight on musical, exclusive of concerts. But the number of separate subjects thus treated was 549, or, on an average, there were scarcely two lectures to each subject, and in a vast majority of cases subjects were disposed of in one lecture. If any man were gravely to propose to narrate the 'History of the Last Fifty Years' in about an hour, or give an account of the 'Nature of Man' in a brief essay, or impart sound ideas of 'Mental Philosophy' in one lecture, or instruct people in the 'Philosophy of Life' between eight and nine o'clock on a winter's night, he would be laughed at as a visionary, if not denounced as a charlatan. And yet each of these subjects had one lecture appropriated to it out of the number mentioned above, and the feelings of the audience were at the conclusion expressed in a 'vote of thanks to the lecturer, passed by acclamation.' It is difficult to account for the choice of many other subjects; and really one cannot help smiling to find that, in institutions established to instruct mechanics in the principles of the arts they practise, single lectures should be given on such subjects as 'Funeral Rites of Various Nations,' 'Habits and Customs of the Esquimaux,' 'the Life, Death, and Burial of Mary Queen of Scots,' 'the Games of Greece,' 'the Absurdity of Astrology,' 'the Theosophy of India,' 'the Sons of Noah;' and on the question, doubtless vastly interesting to the British people—'Are the Inhabitants of Persia, India, and China of Japhetic or Shemitic Origin?' The writings of Shakspeare are an inexhaustible quarry out of which materials for lectures and essays innumerable have been dug. 'That immortal bard' and his works formed directly the topic of twenty-three lectures of the before-mentioned thousand, and indirectly were introduced into many more. Twenty lectures were given at various places on that general subject which 'we of the nineteenth century' ought really by this time to understand—namely, the Present Age—while its details were treated usually in single lectures, whether they related to great movements like the health of towns, the abolition of capital punishment, and the establishment of universal peace, or had reference to great inventions—such as railways and electric telegraphs; or to disputed subjects—as phonography, phrenology, and mesmerism. Among the more practical topics are found 'Mechanics' Institutions and the Right Use of Them,' 'The Working-Man's Home,' 'Trees in Connection with Landscape Painting,' on the works contained in the library, and on the 'Moral of Hogarth's Paintings of the Idle and Industrious Apprentices.' Local antiquities and history have also afforded subjects for instructive lectures, and many travellers have narrated their adventures, and given descriptions of the countries they had visited.

Under such a system much instruction cannot be given; and perhaps the best that can be said of it is, that it is better than some other ways of occupying time, just as it is better to read straight through a dictionary or gazetteer at a country inn on a rainy day than to swear at the weather. The results in both cases are nearly the same. A large amount of superficial miscellaneous knowledge is acquired in a pleasing way, which in some instances may lead to further investigation, or may rouse up some faculties that would otherwise have slumbered. Every one knows that the complete mastery of any one subject is better than a superficial knowledge of many; but the great majority of the public seldom wish to be made masters of any one particular subject, and those who do are often not sufficiently unanimous in their choice to make up a remunerating audience. The system might be greatly improved; but so long as the lectures are to be for the public generally, they must be adapted to all tastes, and be both varied in their subjects and attractive in their nature. Though attended by the least numbers, yet the scientific lectures accomplish perhaps the greatest good. Through them the public become acquainted with every invention and improvement. In the lecture-rooms of Mechanics' Institutions the members have transmitted messages by the electric telegraph long before its public use; have witnessed a model of an atmospheric railway before any line on that principle had been constructed; and have dazzled their eyes by the electric-light, while scientific men were in the first ardour of discussing its capabilities and its practical use.

The most permanent, and perhaps the most useful, part of a Mechanics' Institution is the LIBRARY. Some of the institutions have more than 10,000 volumes, many have 5000, and a majority have more than 1000. These collections are very miscellaneous. It was soon found that the libraries could not be kept strictly scientific. To a great extent the institution was dependent on donations; and as an old proverb advises people 'Never to look a gift horse in the mouth,' so all the books sent were usually accepted. Any one who has either made donations of books, or been connected with a public institution that has received them, knows well that they are occasionally the refuse of a private library; often works of no great value, and always varied in their character. On the other hand, the number of scientific books read by the members was not great, and it soon became apparent that the demand for 'light literature' must to some extent be supplied. Some rules certainly declared that 'the committee shall not admit into the library, either by purchase or donation, any books of a political or theological nature, nor any novels or plays;' but such rules were always broken through. In short, the libraries soon became general collections of 'works in the various departments of literature, science, and the fine arts,' of which about one-fifth were works of fiction. The members make very considerable use of the libraries. For example, there are sixty-six institutions established in different parts of England among a population of about 2,000,000. They have about 22,000 members and 120,000 volumes in their libraries. The number of entries of books given out to these members during each year is a little more than 620,000, or in other words, each member takes out on an average thirty books every year. But as many of those who subscribe only to support

the institution never take out books, and others use the library only occasionally, it would be a near approximation to the truth to estimate that each regular reader takes out one book each week. He carries it home, where it is read not only by himself, but by other members of his family, and thus the influence of these libraries is far greater than from such statements would at first sight appear. Again, many of the more solid and useful works seldom leave the library shelves, and others never circulate at all. If a fair deduction be made for this 'non-effective force' in the library, it follows that the remaining books are circulated six or seven times every year. It will thus be seen that these libraries are not dull receptacles for learned lumber, or great collections to be looked at and boasted of, though seldom used; but they are endowed with a vitality that causes the books to be incessantly circulating from hand to hand. In some of the larger institutions as many as 400 and 500 volumes per day are issued during the winter months; in summer, when there is less inducement to remain in-doors, it is about one-third less. The active circulation of books is further apparent from the large sums that appear in the accounts as having been expended on bookbinding.

What has to be said of the quality of all this reading is not altogether so satisfactory as of its quantity. The members seem generally to say with the poet—

‘ When science turns with dreary look
The leaves of her ungainly book,
I say the dotard fool would dream
Who'd turn the leaves with thee—
The bard who sang by Avon's stream
Has brighter charms for me.’

At all events, they show practically that scientific works have fewer charms for them than fictions, whether in poetry or prose. From a report on the Lancashire and Cheshire Institutions, it appears that the order in which the books are most read may be thus stated:—‘ 1. Fiction; 2. History; 3. Biography; 4. Voyages and travels; 5. Periodicals;’ and in a Yorkshire institution it appears that of every hundred volumes taken from the library, twenty-eight belong to the class of fiction, fifteen to science, fourteen to history and biography, six to voyages and travels, and the remainder to periodicals and miscellaneous works.

The influence of all this reading it is difficult to estimate, but it cannot be otherwise than beneficial. A quarter of a century ago it could not be said, as it can with truth be stated now, that almost every town in England of more than 4000 or 5000 inhabitants possesses a library filled with works, on the whole, of an instructive and useful kind, read with avidity, and available at a trifling charge. Not a working-day passes but thousands of works are issued from the libraries of these institutions to many poor apprentices, who will snatch a little time from their dinner-hours to peruse the treasured volumes; to many wearied mechanics, who will refresh and strengthen themselves after a long day's toil by reading some standard authors; to many poor youths, who will carry home some favourite works to be read aloud in the family circle; and to many young men, far from friends and home, labouring for subsistence amid the crowd of some great city, from whose solitary apartments all the gloom of solitude will be

driven by the great works of the mighty dead. Let no man regard such results lightly because works of fiction are most read. If among the readers are found some who speculate with Hamlet or sympathise with Jeanie Deans, laugh with Sam Weller or follow the wanderings of Childe Harold; there are others who reason with Locke and Whately, or calculate with Newton and Laplace; trace history with Herodotus and Alison, or experiment with Faraday and Liebig. And if among the public there are sensible men who predict harm from the reading of such novels as these libraries contain, let it not be forgotten that many eminent men have predicted good; and that, within the last year, the reading of good novels has been defended by a Scotch sheriff and an English bishop—by Mr Alison at Glasgow, and by Dr Thirlwall at Caermarthen.

One great obstacle to the success of Mechanics' Institutions has been the WANT of ELEMENTARY EDUCATION, prevalent to a considerable extent among that class who were expected to be their principal supporters. To such, scientific lectures were incomprehensible, and to some of them the library was of no use, inasmuch as they were unable to read. It was accordingly found necessary to have evening classes not only for instruction in subjects bearing on trades, but also in reading, writing, and arithmetic, in which the defects of early education might be compensated. Though public lectures are a pleasing, they are not the best, mode of imparting information. To appreciate and follow them some mental training is necessary. John Jones, for example, a young man who has been working hard all the day, goes with wearied legs and arms to a lecture-room, to hear a discourse on science: he knows nothing of the subject; he cannot give that close and continued attention necessary to enable him to understand it; he feels drowsy, and speedily falls asleep. He has had no preparation whatever to enable him to profit by the lecture; many of the phrases used are to him quite unintelligible; his mind is vacant or wandering; and if he should resist the temptation to sleep, he comes away with the most vague and confused idea of what the lecturer has been saying. All such persons must be prepared, by the discipline and instruction of classes, to receive the full benefits of lectures. It is in the class-room that the teacher is brought into close contact with ignorance, and enabled to plant knowledge in its place: in it the interest of the pupil is thoroughly awakened; he can commence at any point; he is not hurried over a subject without properly understanding it; his progress may be slow and laborious, but it is certain and sure. The class-teacher grapples with ignorance hand to hand—the lecturer fights with it at a distance. The teacher's labours are severe, arduous, and trying, but their results are seen and certain—the lecturer's labours are comparatively easy, and their results unseen and uncertain. The great object of every attempt at education should be to bring the teacher and the taught into the closest possible contact, so that the knowledge of the one may be easily transferred to the mind of the other. This can be most readily effected in the class-room; seldom, and with difficulty, in the lecture-hall.

EVENING CLASSES, accordingly, have always formed the more strictly educational part of a Mechanics' Institution. They are not so showy, and perhaps not so profitable in a pecuniary sense, as other departments, and

this has caused them to be to some extent neglected by the managers; but there is no doubt that the influence of the institution on the education of the people is always to be measured by the efficiency of its evening classes. Though it cannot be said that in them are invariably to be found artisans studying the principles of their trades, yet they contain large numbers of diligent and persevering students, receiving general instruction well calculated 'to make the man a better mechanic; the mechanic a better man.' In one class will be seen a number of adults who, if they ever learned to read, have long since forgotten the art, spelling their way through elementary books, or framing their labour-worn hands to form written letters. They are men whose consciousness of ignorance is so painful, that they are formed into a separate class, away from younger students who have long ago acquired those arts which these grown men are now learning. In another class there are apprentices and errand-boys, taken away perhaps at an early age from a free school, to work in factories or shops, or be the drudges in offices, who are now carrying on their study of grammar, geography, and arithmetic, and continuing their practice in writing, thus laying a foundation of knowledge and skill on which hereafter they will rise in the world. In a third class there are engineers, millwrights, and founders, who have been working all day amid the incessant clank of machinery, but are now assembled to study mechanical drawing, and to have explained to them the proportions and modes of working of all the various parts of that complicated mechanism which they are daily engaged in constructing. In another class are joiners, and stone-masons, and bricklayers, learning the proportions and uses of the various orders of architecture, the principles on which houses are built, and the art of making clear and distinct working plans. Painters, engravers, and designers are found in another class, drawing from statues and casts, studying the principles of perspective and the arts of design; while men of all trades and professions are collected in a sixth class, to receive instruction in mathematics, without whose aid the works of the engineer and the architect would be empirical and vain. In a laboratory students are learning chemistry by practical experiments; in one class-room young men engaged in business are learning other languages than their own; and from another comes 'the harmony of sweet sounds' produced by those who are receiving lessons in vocal music. This is a picture not overdrawn of what goes on in almost every institution during at least the winter months of the year. If from such classes does not spring a James Watt or a Christopher Wren, a Simpson or a Davy, yet from them come superintendents of railway works, foremen in foundries and machine-makers' establishments, and 'clerks of the works' at the erection of great public buildings; in consequence of such classes our houses are better built and more skilfully decorated; our machinery better constructed; many accidents from ignorance prevented; articles of ordinary household use made more convenient, and at the same time more pleasing to the eye; work of all kinds in general better done; and the minds and morals of a large part of the population greatly improved.

But the same want of system that is seen in the arrangement of lectures prevails, though not to such an extent, in the evening school. There is no regular course of study compulsory on the student, and he is usually left to make his own choice of a class. The discipline that prevails in a

day-school cannot be enforced here, and accordingly those who have little earnestness or perseverance soon give up the study. Again, it often happens that no class is formed unless a sufficient number of members say they will join it; and a number make the promise who have no desire to prosecute the study, but are attracted by the novelty of the subject. This is strikingly illustrated by the following extract from the report of an institution in Bolton:—'Let an announcement be made that a class is to be formed upon any given subject, and there will very soon be found enough of names of candidates for membership to justify the formation of a class and the appointment of a teacher; and if parties would continue the study long enough, the class would become permanent and respectable. But they do not continue—nay, some of them do not even begin; the whole of their zeal has apparently expended itself in the subscription of their names. The class commences, if it commence at all, in a weakly condition, and speedily dies out.' What remedy is there for such a state of things, except a resort to that which Englishmen will not allow, above all things in education; namely, compulsion?

The general deficiency in elementary education is strikingly manifest from the attendance at the several classes. For example, in a number of institutions in the manufacturing districts, it is estimated that about two-thirds of the attendance is at elementary classes; about one-fourth at those for science and drawing; about one-tenth at music and dancing; and the remainder at those for languages. Many workmen who have when young received what is considered a tolerable education—that is, have been taught to read and write, and to know arithmetic as far as simple proportion—soon find themselves sadly at a loss when they require to execute any description of work involving much calculation. Their knowledge of the four rules of arithmetic is of little service here, and they proceed to the evening class to acquire the necessary information. They cannot afford to wait; they will not submit to pass through the regular gradations of study; what they desire is a rule which they can apply without troubling themselves about the principles on which it is founded. A joiner, for example, wants to know how to calculate the strength of timber; how to ascertain the contents of solid bodies; to know at what angles beams should be placed to be the most secure; and so on. The teacher finds that the applicant knows little of arithmetic, and he is obliged to tell him that he must go back and commence to study fractions and proportion, and then proceed to algebra, geometry, and conic sections. The inquiring joiner is amazed; he laments the neglect of his early years; he is afraid to enter on such a long course of study now, and yet he feels that if he do not, there is little prospect of his ever ceasing to be anything but a mere journeyman. In some cases the study is begun; in many it is not; and the consequence is either that the defects of early education are not supplied, or that the Mechanics' Institution becomes more and more an elementary school.

From every trade illustrations of the same kind may be drawn. The following graphic description was lately given in a lecture delivered by a gentleman long and honourably connected with an institution in one of our seaports:—'The sailor's life and misfortunes exhibit the same necessity for scientific knowledge, and the same want of it. When a boy is too dis-

obedient to be governed at home, too inattentive to learn at school, and too idle to work at "a place," he is then qualified for sea. He perhaps learns whilst *at sea* that a knowledge of navigation would be useful, and he resolves to redeem twelve or thirteen lost years of his life by the desperate efforts of a month. He betakes himself to the Mechanics' Institution, and something like the following dialogue takes place in the mathematical department:—

Teacher. What do you wish to learn?

Sailor. Double altitudes and lunars.

T. You understand trigonometry?

S. No!

T. Do you know anything of geometry?

S. No!

T. Do you understand decimals?

S. No!

T. What *did* you learn when you went to school?

S. I think I went as far as multiplication.

The poor fellow, now nineteen or twenty years of age, is placed in a class of little boys to begin his education anew: he wets his thumb, and counts over 211 pages of "Melrose's Arithmetic;" looks at the thickness of "Norrie's Navigation;" thinks of his five months' voyage and three weeks in port, and abandons the hope of learning navigation—for ever.'

One of the great causes of this general introduction of elementary classes is to be found in the practice of withdrawing pupils at too early an age from school, and in the neglect manifested to an inconceivable extent by many parents as to the education of their children. In the large towns, hundreds of pupils are yearly removed from school, just at the time when instruction is beginning to exert its most beneficial influence; they are sent to work in an office or a mill, at the counter or the bench, and they speedily acquire habits that cause them to forget all the good lessons of the school. Their parents find it much more agreeable to receive a few shillings weekly for the labour of their children than to pay a few pence for their instruction. Nay, in some places their ideas are so perverted on this subject, that they meet the requests of benevolent people that they should send their children to school, by asking how much they will be paid for doing so! That under such influences a large portion of the population should grow up half-educated or uneducated is not surprising, and it is satisfactory to know that when such become sensible of their ignorance and defects, the schools of Mechanics' Institutions are open to receive them. But the instruction there given is very inadequate compensation for that which has been lost. Many things have to be forgotten as well as learned; the mind is not so open to receive impressions as in early years; and the simple task that would be easy to the child is often irksome to the youth. Besides, the attendance at such evening classes is exceedingly irregular: a press of business, a message to an unusual distance, and many other circumstances will interfere to cause the loss of a night's instruction.

Such circumstances have determined the directors of some of the institutions, instead of supplying the defects of early education, to supply that early education itself. Accordingly, day schools have been opened in

connection with many of them. A day school has been established in connection with the London Institution; there is another at Leeds; and in Lancashire nine of the institutions have day-schools, attended by upwards of 2000 pupils. It is reported that they 'not only are the most prosperous part of the institution, but add considerably to the prosperity of other departments;' and that 'there is no new plan which the directors of a Mechanics' Institution could adopt with greater assurance of success than the opening of a day school.' In one of two instances, these schools have been placed under government inspection; the Committee of Council on Education having contributed to the funds for the erection of the building used during the day for the school, and during the evening for the other departments of the institution.

The idea of collecting MODELS of MACHINERY, APPARATUS, &c. has never been to any considerable extent carried out in the way originally proposed. Some institutions have collected a few models, a small quantity of apparatus, and some specimens of natural history, to form the nucleus of a museum, but beyond this little has been done. In another manner, however, the idea has been carried out. At the principal institutions what are called Polytechnic Exhibitions have repeatedly been held, and a prominent place was given in them to philosophical apparatus and models. These were often shown at work, and interesting and instructive experiments made with them. The articles contained in these exhibitions were exceedingly numerous and varied, embracing antiquities and curiosities, paintings, statues, and other works of art, &c. In one of these held in Liverpool, there were more than 1000 paintings, engravings, and statues; about 350 specimens of natural history; 200 autographs; and about 500 curiosities of one kind and another. It was estimated that during the six weeks that this collection was open, it was visited by about 100,000 persons. It would be too much to say that the visitors were educated by the sight, but they certainly were pleased and improved. At every one of these exhibitions, printing presses were at work, from which issued occasionally a description of some particular object in the exhibition, or a programme of the concerts that were from time to time given; and at some, periodicals were printed called 'Exhibition Gazettes.' The character of this literature was not very brilliant, but yet these tiny periodicals called into action a good deal of mental energy, which displayed itself sometimes in a criticism on a class or group of paintings, sometimes in a few verses, and occasionally in such good-humoured remarks as this:—'The latest case of absence of mind is that of a young gent. who went to a public-house instead of the Exhibition, and did not find out his mistake until called on to pay his reckoning.' The proceeds of these exhibitions were exceedingly serviceable to the institutions, for in Leeds, Manchester, and Liverpool, more than £10,000 were from time to time realised from them; thus enabling the directors to pay off heavy debts that had accumulated against the buildings.

Though a READING-ROOM appears in the list of objects contemplated at the establishment of the London Institution, yet that seems to have been intended merely as a place where the works of reference in the library could be consulted, not where newspapers could be read. But gradually into almost every institution newspapers have been introduced, not without

long discussions as to the propriety of such a step. It does not appear that in those places where an impartial selection of newspapers has been made any harm has ensued; on the contrary, the result has been beneficial. In many places the institutions would cease to exist but for the news-room and library. In many villages, and indeed in some considerable towns also, the institution news-room, if not the only one, is the best. Occasionally two news-rooms are found, at different rates of subscription; the dear room being always a day ahead of the news of the other. In some the subscriptions are so much for admission during the day, and a less sum for the evening.

In 1837 a proposal was made to form a UNION OF THE INSTITUTIONS in the West Riding of Yorkshire. The object was to obtain, by the offer of combined engagements, the services of lecturers at a cheaper rate than each institution individually could procure; to effect a more combined and systematic working by holding conferences of delegates from the various institutions, at which the experience of all might be available to each; to collect and diffuse information on educational subjects; to assist in the formation of new institutions, and the revival of those that may have fallen into decay. This union was ultimately extended so as to embrace the entire county of York. Other unions were subsequently formed: one for Lancashire and Cheshire, one for the Midland Counties, one for the northern counties of England, and one for Scotland. These unions have exerted a very beneficial influence on the various institutions. It is true that not so much has been accomplished as was at first expected in procuring cheap lectures, in consequence partly of the difficulty of finding subjects and lecturers suitable to the various localities, and more particularly from the small amount that in the majority of the institutions could be expended on lectures. Another great obstacle to the success of these unions has been the indifference of the directors of many of the institutions. This is manifested in all the statistical tables, where the words 'no report' are of frequent occurrence. In one union it appears, that though a number of gratuitous lectures were offered, some of the institutions did not avail themselves of them, not even replying to the letters in which the offers were made. Other boards of directors have held aloof from the groundless fear, that the union would exercise some authority over them, and that they would accordingly lose some portion of their independence. But even if such unions were nothing more than mere organisations for circulating information and statistics regarding the institutions embraced in them, they would be extremely valuable; and it is worthy of consideration whether the plan could not be extended so that even smaller districts than counties might have unions, and a national union formed, on the other hand, to which the smaller might periodically report. The great object appears to be; not to lessen the influence of local committees, but rather to increase it, and to excite them to greater activity by the publication, from time to time, of well digested reports on all the institutions in the country. These should not be mere masses of figures, arranged without much regard to order, but records of progress, statements of difficulties encountered, and the modes in which they had been overcome; descriptions of new plans introduced, and accurate accounts of their results; advertisements of

and criticisms on lectures; lists of cheap books suitable for the libraries, &c. &c. Such reports, issued at seasons when they would be most useful, and read and discussed at the local boards, would be far more serviceable than an annual report, and an annual conference, though these last might still be continued.

The disposition to give way in these institutions to the natural demand for amusement has already been referred to. When an institution gets into debt either by giving education for less than it cost, or from some falling off in the number of members, the expedients for raising money that are immediately suggested are by such exhibitions as have been already described—by bazaars, soirées, concerts, or pleasure excursions. When such measures are adopted to procure money for the erection of buildings, they are not objectionable, as it would appear to be in this country scarcely possible to procure sufficient money, even in some instances for building churches, without resorting to such expedients; but when it is found, as is often the case, that the institution is dependent for a considerable portion of its annual revenue on the proceeds of some annual soirée or festival, the only conclusion is, that that institution is not in a healthy state. The ideas of the nature of the institution given to the public at such meetings are usually very exaggerated, and calculated to convey wrong impressions. A stranger visiting about Christmas a town containing a Mechanics' Institution sees all the dead walls placarded with enormous bills announcing a great institution tea-party, at which distinguished men are to attend, and for which it is significantly announced that some 'celebrated quadrille band' is engaged. The stranger is struck by the advertisement: it must surely be a great institution about which there is such a flourish of trumpets. He goes to the 'soirée,' and finds the room crowded with an exceedingly gay assembly of young and old, male and female, all in holiday attire, and all determined on enjoying themselves. Addresses are delivered, which raise his opinion of the grandeur of the institution; highly philanthropic sentiments are proposed and responded to; songs are sung rejoicing in the 'good time coming;' and the stranger is pleased with all that he sees and hears. After an hour or two thus spent, the speakers cut their orations short with jocose allusions to the anxiety which the ladies must now be beginning to feel for the speaking to end, and the dancing (explanation of the quadrille band) to begin! Next day the stranger visits the institution, and—the spell is broken. He finds it in perhaps an unsuitable building; it contains a pretty fair library; a few people are reading in the news-room; and when he goes in the evening he finds a number of pupils, not nearly so many as he had been led to expect, quietly engaged in study. The total number of members does not exceed half the number of those in attendance the evening previous, and the educational machinery is used by a portion only of those. He cannot conceal his disappointment; but his friend the secretary tells him, that without such entertainments they could not get on, and tries to cheer him by saying that the tea-party has added some ten or twenty pounds to the funds. He finds that education is not so much valued as he thought; and he also learns, that it is just possible that some people may drink tea, listen to songs and speeches, dance quadrilles and polkas till an early hour

in the morning, and then sleep sound on the pleasant thought, that thereby they have been promoting the education of the people.

Or again, here is one of the largest institutions in England getting up, at an expense of more than a hundred pounds, an annual Christmas party, the leading feature of which is a representation in character and costume of the mode of keeping Christmas in 'merrie Englande in y^e olden time,' the whole being a pageant fit for the stage of a theatre, if the friends of the 'legitimate drama' do not object. But the public crowd to gaze; twice the number attend the show that attend the institution; and the amount realised is nearly sufficient to pay the yearly salaries of teachers in the evening school. It is true that, like Christmas, it 'comes but once a year,' and to such a spectacle *per se* no objection can be made; but it is objectionable that such a display of mumming and misrule, hoar's heads and wassail bowls, processions of the seasons and yule-logs, should not only be a great feature in an educational establishment, but that the revenue of the institution should be in the slightest degree dependent on the success of an exhibition altogether extraneous.

It is little to the purpose to say, that the public *will* have such things. By all means let the public have them. Never let it be said that the social feelings of the English people should not be allowed free scope at a festive season like Christmas. But it does not follow from this that the managers of an educational institution are to turn caterers for all the wants of the public, and supply theatrical pageants, miscellaneous concerts, cheap railway trips, and social tea-parties! 'Oh, but,' it is said, 'such plans advertise the institution, and bring new members.' This is quite a delusion. The institution appears before the public not in its real state, but in masquerading attire, that is never attractive to those who really desire instruction. It is like a quack advertisement resorted to unnecessarily. Support thus obtained is never to be depended on: the true support of every institution must come from its own members—from those who are receiving and can appreciate its benefits. All other support is deceptive, and can only lead the institution farther astray. New members may occasionally be obtained in this manner, but such do not become permanent; amusement brought them and amusement must keep them, and the directors are led farther and farther away from the great objects of the institution. The educational part is neglected; novelties are introduced always with the plea that they have some educational influence, until an exhibition of ventriloquism is considered a pleasing mode of teaching acoustics, and games at draughts and chess as effectual in strengthening the mind as the study of the six books of Euclid. The idea arises and is speedily acted on—that to give a man desire to attend scientific lectures, and the habits of thought and attention requisite to understand them, it is only necessary to make him a regular attender at musical concerts. It is useless to argue respecting ideas like this when their practical results are so plain. At an institution in Liverpool such an idea was carried out under the most favourable circumstances. For four years cheap concerts for the people were there given every Saturday evening during six months of the year, so well attended that the average number at the most attractive was 2200, and at the least about 1500. It was thought that four years' work of this kind must have prepared the people to attend and appreciate lectures of an instructive

order. Accordingly, lectures were commenced, not on scientific, but on attractive literary subjects; not long, but short courses, never exceeding three lectures. The charge of admission to each lecture was only one-third of that to each concert—the former being one penny, and the latter threepence. The result was an average attendance of 455 at the lectures, and at some the number did not exceed 100. A few of these might have been induced to attend by their having also attended the concerts; but there is every reason to believe that the audiences would have been equally numerous, or nearly so, had no concerts ever been given. It is perfectly true that the public in the mass are easiest gained by amusement; but it is not true that when they have been gained by amusement they will remain for study. It is hoped that no reader of these pages will conclude from what has been said that the writer is either indifferent or hostile to rational amusement. Far from it. People must have amusement, whether they are high or low, rich or poor. We are not to be chained for ever to hard labour either of the hand or the head; intervals of recreation ought to occur in both physical and mental toil. We must not, when assembled together,

‘Sour an’ sulky sit, like auld philosophorums.’

No! music and the dance, games of skill, both in-door and out, and many entertainments to excite sound, hearty, good-humoured laughter, must be resorted to. Let facilities for such be multiplied to any extent; but this should be done fairly and honestly. Let music-halls be increased in number, public parks opened, proper arrangements made for dancing; but let there be no grave genius behind all these to come out and say to people thus enjoying themselves:—‘Ladies and gentlemen, this is really very delightful, and is certain to elevate you in the scale of rational beings; but I have been obliged to give you these things because I was afraid that if I did not you would go to very bad places for them, and because I expect that you will thus be so much improved as to be induced to come to my school, in which I impart excellent scientific instruction.’ It would almost be better if the institution were at once to give itself unbounded license than to spoil sport in this way. If these institutions cannot exist without amusement—if to it the education is to be made entirely subordinate, let the fact be proclaimed, and let them not sail under a false flag.

Again, it was thought that the giving of Saturday-evening concerts at these institutions would diminish the attendance at many of those free concert-rooms, whose influence was admittedly pernicious. No such result has been observed. In Manchester and Liverpool, where the attempt has been made on the largest scale, and with the most effective means, the number of such concert-rooms has increased during the time that the ‘counter attractions’ have been most active. In the former town, the number of ‘public and beer houses’ having musical entertainments was, in 1843, when the Mechanics’ Institution concerts were begun, 85; the number is now 90. This difference, however, expresses very inadequately the increase; because at first these places had not extensive accommodation for visitors, whereas now large buildings are used for the purpose, and for that purpose alone. During a recent year, when the Mechanics’ Institution was losing considerably by its concerts, a new ‘free concert-room’ capable of accommodating about two thousand persons was opened in Manchester.

Indeed it appears probable, that, so far from diminishing, these 'counter attractions' have assisted to increase the attendance at the free concert-rooms.

Such plans are all founded on the erroneous principle of treating grown-up men and women in the same way as children. Many of the old modes of giving instruction were doubtless harsh and repulsive; but other modes suggested of late years have sometimes been in the opposite extreme, and, by too great efforts to make study pleasant, have turned it into little other than trifling. Study must always be laborious, often painful; beset with difficulties intended to rouse the mind, and sharpen its faculties, but not to be whistled aside by mere amusement. To make the pursuit of knowledge agreeable and pleasant to the student, we must begin, not by removing friendly obstacles, or by carrying him over difficulties, or by hanging everything in an atmosphere of fun, but by acting on his spirit, by giving it that tone, and imparting to it those feelings, that will cause it to enter on the pursuit, independent of all extraneous stimulants. In the education of children, it is occasionally necessary to employ a little amusement to induce or seduce them into study; but it is quite inapplicable to the education of adults. People who can judge for themselves are not to be treated in this way. Those who desire amusement, and those who desire instruction, go directly to their object; and all the agreeable and amusing snares laid for them are laid in vain.

On the other hand, the public generally, and especially the working-classes, soon lose confidence in the educational efficiency of an institution whose directors seem to be occupied in other than educational affairs. It is difficult enough to induce many people to suppose that a body of men chosen out of all trades and professions are altogether competent to superintend school instruction; to engage and dismiss teachers; to select properly-qualified lecturers, and to choose suitable books for the library; and it becomes impossible, when it is found that these directors seem to be occupied more in the irregular than the regular business of the institution, and devoting more time to means for raising money, than in improving and rendering thoroughly efficient the establishment under their care.

If the directors of any institution were to come forward and say—'Henceforth this institution is to be purely educational; we think it necessary that facilities for amusement should be provided, but that other places and persons should supply them,' there would at once be formed organizations for supplying rational amusement to the people under proper regulations, while the institution would become a quiet, orderly establishment for education. This was what it was intended to be, and is what it must become. Everything points to the policy of such a course. The present system is confessedly unsatisfactory, and if persisted in, will lead to worse results. The demand for amusement, though great, is temporary, and the subjects constantly changing; the demand for education, though limited, is permanent, and the subjects remain the same. The result would probably be, that the number of members would immediately decrease; but the number of members is not always a measure of the prosperity of the institution. The great question is, not how many members pay, but how many are taught, and the reduction would certainly not be in the

latter. But expenditure would be at the same time reduced; and though temporary inconvenience might be felt, it would soon pass away. Above all, the institution would then take its stand upon firm, true ground; the public would gather round it, and it would take firmer hold of the affections and sympathies of the working-classes.

It would be treating the subject imperfectly to conclude here. Some remarks on making these institutions more efficient, and on remedying the various defects that have been referred to, seem necessary; and the following suggestions, founded on many years' experience of many institutions, are submitted more with the view of indicating the general nature of the policy which the directors should pursue, than in stating particular plans that could not be applicable to every particular case.

1. They should all be PLACED ON A SELF-SUPPORTING BASIS. Hitherto scarcely one institution has been in this position. The amount paid by those who actually used the institution was never sufficient to defray the regular expenditure. The deficiency was usually made up by the subscriptions of 'honorary members,' who almost invariably paid at the highest rate, but who seldom or never attended the institution, and by the proceeds of the soirées, &c. that have already been described. This state of things was neither intended nor desired by the founders of these institutions. The mechanics, it was distinctly understood, were 'to pay as well as they can for the instruction they are to receive;' and so jealous were some of the leading founders of the London Institution of anything like a departure from this principle, that exception was taken to the applause which followed the offer of a gratuitous course of lectures. Under the present system many of the institutions appear to some extent to be charitable; and this circumstance prevents numbers, of working-men especially, who have independent ideas about 'paying their way,' from attending them. Before they will become members, it must be made clear to them that they will receive full value for their money, neither more nor less. This supplementary revenue, again, is always uncertain and variable; because it does not depend on the regular operations of the institution, but on plans whose results are influenced by all the accidents of public taste, the state of trade, &c. It would of course be impossible in undowered establishments to secure precisely the same amount of revenue each year, but it is possible to make such arrangements that the expenditure might easily contract or expand with the revenue. The institution would then be in a secure position; an occasional soirée might be held to promote kindly feelings among the members, but no pecuniary gain should be expected from it, nor should it be used either to compensate for other losses, or made a leading feature in the institution. It would also be impolitic to decline the assistance of those friends of education who desired to support, though not to use, the institution as honorary members; but their subscriptions should either be collected into a reserved fund, to meet any incidental losses that might, even under the most prudent management, arise; or to defray general expense, such as rent or interest of a mortgage; or to form a fund for assisting poor apprentices and errand-boys who might find it difficult to procure admission otherwise to the privileges of the institution. It would be necessary at the same time to change the

mode of payment and the amount of ordinary subscriptions. At present, it usually happens that a general subscription admits to all departments—classes, lectures, library, and reading-room; but these are not desired by all subscribers, so that many pay for what they do not take. While some specific subscription constituting membership should still be retained, there ought to be instituted separate charges to each department; and in every case these charges should be such as to afford, with the expected number of subscribers, sufficient revenue to cover the current expenditure; while the cost of new books and of actual property could be paid out of the subscriptions of general members, who would thus virtually become proprietors, and should be recognised as such. It is possible that such an arrangement would cause fees in some measure to be increased; but they would be rendered much easier of payment, and the system would be better liked by the great majority of that class for whom the institutions were intended. Above all, the annual revenue would become more certain and secure, and the resort to temporary and often dangerous expedients to raise money be rendered unnecessary.

2. GREATER SYSTEM should be introduced into the plans of instruction. The department requiring this most is the evening school. In it it would appear desirable to have two distinct courses: one *general*, embracing those subjects of knowledge that are the groundwork of all others, and that apply to all men; the other *special*, embracing instruction in those subjects that bear most directly on particular trades and occupations. At present, as has already been shown, little system is observed in this department: one class is not sufficiently made the preparation for another, and time is lost and energy wasted in consequence. With regard to the general section, it would be easy to prepare and adopt a course of study; and with regard to the particular section, conferences not only of the directors of various institutions, but of men practically acquainted with the requirements of various trades, might be held, and a general plan of study prepared. This should be circulated throughout the country, and adapted, as far as local circumstances would permit, to the wants of each individual institution. By a little co-operation, it could be arranged that the tickets of one institution would be available for another, so that if a working-man entered on a particular course of study in one institution, and had to remove to another town before the session terminated, he might, with little inconvenience, and no loss, resume the study at the institution there. With such an arrangement, the course of study, though extending over a period of years, would be rendered highly efficient and systematic. To apprentices, in particular, such a plan would be most valuable; for in the Mechanics' Institution not only would any defects in their early education be compensated, but they would acquire that thorough knowledge of the principles of the trades to which they are apprenticed which cannot be imparted in a workshop, and without which they are not in a position to elevate themselves, or to attain distinction. The value of such studies would necessarily be greatly increased if the certificates or diplomas granted by the institutions were to be recognised by the employers of labour. It sometimes happens that manual skill is found in connection with ignorance or even dissipated habits, but as a general rule, educated workmen receive the preference of employers. The amount of preference to be given to

those holding such certificates would of course depend on the character which the institutions gained for themselves as educational establishments, just as a degree obtained at any college is valued according to the character of the college where it is obtained. It is to be regretted that among working-men generally there is not a sufficiently high idea of the necessity of knowledge obtained *out of* the workshop; and their views will be most speedily changed by any system under which the attainment of this knowledge will be recognised in connection with solid advantages. Nor let the old cry about the spending of all leisure time in amusement be again raised to deter from the prosecution of such studies. If artisans will look closely at those occupations which they envy, because they seem to involve little manual labour, they will find that the labour is more protracted and more severe than in their own pursuits; and they will further find, that in no profession can distinction or great emolument be gained unless by the unwearied pursuit of courses of study bearing on the great principles of such profession at the same time that the student is engaged in the drudgery of its details. It has already been said, that so long as the lectures are to be addressed to the general public, they must be varied and attractive in their subjects; but here also greater attention to system and more regard to completeness of exposition would be very serviceable. Public lectures can never be very effective as modes of thorough education; but they can, and they ought to be, prevented from degenerating either into foolery or trifling. Much of the money now spent on lectures would be much more profitably employed in extending and improving the library. Besides, as in such a plan the system of class-lecturing would require to be adopted with some subjects, others than students might be admitted, so that the members and the public would have even greater facilities than now of attending good lectures giving complete expositions of particular subjects.

3. Wherever it is practicable, a DAY-SCHOOL should be attached to the institution. Without entering into the much-disputed statistics of education, it may safely, and without much fear of contradiction, be said that in almost every town where a Mechanics' Institution is established, an additional day-school would be of great service to the community at large. It has already been shown that some of the most serious obstacles encountered by these institutions have arisen from the defects of early education; and that wherever such day-schools have been opened, their results, pecuniary as well as educational, have been highly satisfactory. The advantages resulting to the institution from the establishment of such day-schools are thus stated in one of the Reports of the Lancashire and Cheshire Union:—'A broader basis is secured; the assistance of better teachers is obtained for the evening classes; and the pupils of the school, when they grow up to manhood, will be found the best friends and supporters of the institution.'

4. In some large towns BRANCH INSTITUTIONS, established in situations convenient to the working-classes, would be very serviceable. The instruction would then be brought to their own doors, and the objections as to locality removed. The detailed arrangements for carrying out such a plan would soon suggest themselves.

5. Every institution should possess, free from all encumbrance, a BUILD-

ING specially erected for its purposes. At present, the proceedings of a great majority of the institutions are carried on in hired premises, which are often neither comfortable nor well adapted to the purpose. Only about one-fifth of the institutions in Lancashire, Cheshire, and Yorkshire, have buildings which they can call their own. This is a serious defect, and the members should exert themselves, without ceasing, until they have procured sufficient funds for supplying it. Exhibitions, bazaars, soirées, &c. are perfectly legitimate means for accomplishing *this* purpose.

These suggestions are practicable, provided the attempt to carry them out is made earnestly, and with vigour. Difficulties will arise, as in every other human undertaking; but these must be removed, not simply regretted; and when they are realised, these institutions will occupy a position and exert an influence unknown to them before. However much they may have departed hitherto from their original intention, yet it is hoped that the experience of the past has taught this lesson—that an institution which thoroughly instructs a few is more serviceable to society, and more likely to be prosperous and permanent, than one that half-instructs some, and amuses many.

We cannot share the opinions of those who believe that Mechanics' Institutions are destined to decline and die. While the cause of education is making progress, and gaining new friends every day, we cannot suppose that such educational institutions will not make progress with it. That they have not accomplished all that their sanguine founders anticipated, is true; but this should not blind us to the fact, that they have really accomplished much, and given earnest of ability to accomplish more. If the future policy of their directors be guided by past experience—if fooleries are discarded, and SOUND AND USEFUL INSTRUCTION made their end and aim—it is certain that they will soon become one of the greatest modern agencies in improving and extending education among the people.

THOMAS CAMPBELL.

THE biography of a literary man is to be found in the history of his works: startling incident and romantic adventure are not to be expected. The development of the progress of genius can alone supply the record of its existence. That of a poet ranking so high as Thomas Campbell discovers no exception to this general law.

He was born on the 27th of July 1777, in his father's house, situated in the High Street, Glasgow, subsequently demolished. The poet's father was Alexander, the youngest of three brothers, the sons of Archibald Campbell of Kirnan, belonging to a family which had been long settled at a place of that name, on the borders of Inverary. The estate produced a small independent rental, and came by inheritance to Robert Campbell, the eldest son of Archibald, and the poet's uncle, who ultimately sold it, and died in London. The name of the second son was Archibald: he went out to Jamaica as a Presbyterian clergyman, and removing from that island to Virginia, in the United States, died there very much esteemed by all who knew him. Through his descendants a legacy of four thousand five hundred pounds came eventually to the subject of this memoir.

Alexander Campbell went in early life to America. By trade a merchant, he was still connected with that country after his return to Glasgow. Here he carried on his business in partnership with Daniel Campbell, who, though of the same name, was not a relative of the family. This Daniel's sister became afterwards the wife of Alexander, and the poet's mother. Her name was Margaret, and he was married to her at Glasgow in 1756, when he was forty-nine and she had just numbered her twentieth year. The business of the partnership flourished until the American war broke out. In 1775, Alexander, then in his sixty-fifth year, found his house ruined, as was the case with numerous other firms similarly connected with the colonies at the commencement of that unnatural contest. Alexander Campbell was an acute and well-informed man, religiously disposed, of mild manners. He was sixty-seven when the poet, his youngest child, was born, and he died in Edinburgh, in March 1801, aged ninety-one.

Margaret Campbell, the poet's mother, was born in 1736, and died in February 1812, aged seventy-six. She was a woman of a decided character, in person thin, with dark eyes and hair, comely, shrewd, of a friendly cha-

acter among her neighbours, but at home, and in her family, a firm disciplinarian. She was an excellent domestic manager, and conducted herself with exemplary judgment and good conduct under the severe trial of her husband's failure, two years before the poet's birth, at a time when she naturally looked forward, as well as her husband, to that ease and tranquillity which are so desirable in the downfall of life.

The family of Alexander and Margaret Campbell consisted, according to some accounts, of only ten children, but, more correctly, of eleven, one having died in infancy. The eldest, and last surviving except the poet, named Mary, died in Edinburgh in 1843, aged eighty-six. There were two other daughters, Isabella and Elizabeth, who both died in Edinburgh—the former in 1837, aged seventy-nine; the last in 1829, aged sixty-four. The sons were seven—Archibald, who died in Virginia in 1830, had been a planter in Berbice; Alexander, who returned from Berbice to Glasgow, died there in 1826; John, who having settled at Demerara, died there in 1806; Daniel, who died an infant; Robert, who went to the United States, a merchant, and married a daughter of the well-known Patrick Henry in Virginia, and died in 1807; James, drowned while bathing in the Clyde in 1783; Daniel, born in 1773, who was a cotton-manufacturer in Glasgow, but making little progress in business, went to France, and managed a considerable manufactory at Rouen, whence no account of his death ever reached his family; and lastly, Thomas, the poet, the survivor of them all, and the favourite of his parents.

The poet was named Thomas after Dr Reid, the professor of moral philosophy in the university of Glasgow, who officiated at the font. Thomas was the Benjamin of his parents; the more beloved, perhaps, for coming apart from the rest of the family under their fallen fortunes. He was the favourite son of both his parents, whose regrets at their misfortunes his playfulness and active disposition helped them at times to beguile. He was taught to read by his favourite sister, who was nineteen years his senior. In the eighth year of his age, in 1785, he was sent to the grammar school in Glasgow, then under the care of Mr Alison, who was noted for his ability in teaching the classics. A generous system of encouragement was all that was required to give young Campbell an ardent thirst after excellence: he was ambitious in the right way, but highly sensitive. His father assisted him in his tasks; and his progress was commensurate with the sanguine hopes of his instructors; but by the excitement produced through emulation it was found that his health suffered. He was removed, therefore, from school into country air for a short time, which had the desired effect, and he returned to his studies with renewed vigour. His course was highly satisfactory. At eleven years of age he began to compose verses. crude enough, it is true; but among others were stanzas on a parrot, equal at all events to those which Samuel Johnson made upon his duck. Somewhat lame in metre, they indicated the tendency of the youthful mind, but by no means rivalled what others have produced at the same age, giving little promise of the appearance in another decade of the 'Pleasures of Hope,' in which the lines are so exquisitely modulated. His translations from the Greek in his twelfth year are remarkable only for being made at that early age. His attachment to

Greek poetry beginning thus early, he soon obtained prizes for his proficiency in translation—his first being gained in 1789, when he was in his twelfth year.

The father of the poet, as before observed, was strictly religious, and early imbued his son with the same feeling. Young Campbell soon became a reader of some of the more noted divines, and their lessons frequently raised a conflict in his mind between his boyish follies and his sense of religious obligation. He was of a joyous temperament, the sallies of which were often daunted by the whispers of conscience through the impressions thus effected. Even thus young, and under such impressions, he and his schoolfellows would commit lapses occasionally that excited the reprobation of their friends; and getting tired of the long sermons of one of the clergymen under whom they sat, young Campbell and his companions turned some of the good man's repetitions into a lampoon. His schoolfellows were not exempted from his turn for playful satire; some specimens of which, as well as his school exercises and translations, have been preserved through the partiality of friends. They exhibit a great superiority over the productions of the generality of schoolboys at so early an age; marking a certain precocity of intellect, and a power of close application, however desultory, rare in youth of so vivacious a temperament.

In his thirteenth year the poet quitted the grammar school for the university. There he gained three prizes the first year: one for Latin, another for English verse, and a third a bursary on Leighton's foundation. The last was not won without a severe struggle in competition with one considered a good scholar, and very much his senior in years. This struggle involved a competition in construing and writing Latin before the entire faculty. At the university he read some of the more celebrated of the English authors, both in poetry and prose; and bore off prizes for exercises and translations in Greek as well as Latin. These successes were the more extraordinary, as, from his necessities, owing to the scanty income of his parents, he had not only the labour of his own studies upon his hands, but he had to instruct others. His own studies were quite sufficient to try the constitution, and to exhaust the mental efforts of one so delicate in bodily frame; but he was obliged, to the neglecting of several heads of study, to give elementary instruction to the younger lads: to exhaust himself in teaching while he should have been learning. This drudgery reacted upon the poet in after-life, and when he had attained middle age, stamped upon him a reluctance to mental exertion which it was at times impossible for him to overcome.

In the midst of this toil the poet went on with his metrical compositions, both original and translated. It was in 1791, and in his thirteenth year, that he himself confessed to his first published lines, entitled 'Morven and Fillan': he styled them 'Ossianic Verses.' His next printed production consisted of 'Verses on the Queen of France,' published, he said, in a Glasgow newspaper when he was fifteen; and in his eighteenth year he brought out 'Love and Madness.' The 'Pleasures of Hope' appeared before he had completed his twenty-second year.

Not only was young Campbell successful in gaining classical honours: he obtained a prize in the logic class under Professor Jardine, and was

made one of the earliest examiners of the exercises sent in by the other students in that class. His prose exercises in English were remarkable for their accurate style and manly argument; and he also received a third Greek prize for good conduct. He wrote some verses about this time to the Glasgow volunteers, but they possessed no merit beyond the high patriotic spirit they exhibited. Once asking leave of absence, which was conceded for his good conduct, he walked to Edinburgh, where he was present at the trial of Gerald, who, with Muir, Palmer, and others, was arrested on the charge of sedition. It filled the poet with the same horror it did every other reflecting person, as the parties accused had never uttered a word stronger than had been used by William Pitt himself in parliament. The trial of Gerald made a deep impression upon his mind, and he inveighed against the unfairness with which those processes were conducted, and the indecent conduct of the judges towards the prisoner Gerald. It was some time before he recovered the shock thus received.

Soon afterwards he gained fresh honours in the university by a poetical 'Essay on the Origin of Evil' in English, and a Greek translation of passages from the 'Clouds of Aristophanes.' The latter was pronounced to be the best version ever sent in by any student of the university. The poet now began to think of some employment by which he might attain independence. His inclination led him to a civil rather than an ecclesiastical profession, but here he had to combat the want of the requisite finances. He was of too sensitive a temperament to withstand the sight of a surgical operation, much less take a part in it; and physic was allied too nearly to surgery. A mercantile pursuit suggested itself; and thus perplexed he remained in a distressing state of 'incertitude. Nor could he find a fixed object whereupon to rest. He was then in his sixteenth year; and while in this painful state of indecision, and thinking about the church, he wrote some lines beginning —

'When Jordan hushed his waters still;'

printed in early editions of his works, but excluded from the later, because he said they were no better than a Christmas carol.

In his seventeenth year the failure of a lawsuit straitened more than ever the circumstances of his father; who being left only a small income derived from certain mercantile annuities, young Campbell felt his dependent position more keenly. His father was now eighty-five years of age, and his family still numerous. Under such circumstances the poet, recommended by several of the professors of Glasgow university, accepted a temporary situation as an instructor of pupils in the western islands, where Mull was his destination for six months. He travelled with a friend as far as Oban, saving a boy from being drowned on the way. Thence he crossed over to Mull, and traversed on foot the length of the island, thirty miles, in one day, and without a guide, to the place of his destination. This was the house of Mrs Campbell of Sunipol near the Point of Calloch. Here, besides attending to his pupils, he continued his translation of the 'Clouds of Aristophanes,' and portions of 'Æschylus,' and composed some of the best lines he had written previous to that

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period, entitled 'An Elegy Written in Mull.' These lines have not been printed, so far as we know, in any edition of his works.

ELEGY WRITTEN IN MULL.

The tempest blackens on the dusky moor,
And billows lash the long-resounding shore;
In pensive mood I roam the desert ground,
And vainly sigh for scenes no longer found.
Oh whither fled the pleasurable hours
That chased each care, and fired the muse's powers—
The classic haunts of youth for ever gay,
Where mirth and friendship cheered the close of day—
The well-known valleys where I wont to roam,
The native sports, the nameless joys of home?
Far different scenes allure my wondering eye:
The white wave foaming to the distant sky;
The cloudy heavens, unblest by summer's smile;
The sounding storm that sweeps the rugged isle,
The chill, bleak summit of eternal snow,
The wide, wild glen—the pathless plains below,
The dark, blue rocks, in barren grandeur piled,
The cuckoo sighing to the pensive wild!
Far different these from all that charmed before,
The grassy banks of Clutha's winding shore,
Her sloping vales, with waving forests lined,
Her smooth blue lakes, unruffled by the wind.
Hail, happy Clutha! glad shall I survey
Thy gilded turrets from the distant way!
Thy sight shall cheer the weary traveller's toil,
And joy shall hail me to my native soil.

He was attacked for a short time with indisposition and lowness of spirits at Sunipol; yet while there he visited Staffa and Icolmkill. In his correspondence with his friends, he expressed his high admiration of the scenery which he had explored among the Hebrides. It left an impression on his mind to which he often alluded.

At Sunipol, although kindly treated, he appeared to tire, and longed to return to Glasgow. It was during his residence at Sunipol that he wrote his verses to 'Caroline,' a young lady of Inverary, who was there upon a visit. He also wrote some lines to 'A Rural Beauty in Mull;' but neither exhibits aught of passion, though written in love's full age. Both, however, are redolent of gentle admiration and dispassionate tenderness. Here he resided five months, and then returned home. During the winter of 1795-6 he supported himself by private tuition; numbering among his pupils Mr. afterwards Lord Cuninghame of the Justiciary Court of Edinburgh. At this period, and indeed throughout life, the poet was a warm advocate of free principles, which were strengthened by his admiration of John Millar, the professor of law in the university of Glasgow, a zealous Whig. Campbell has left the professor's character on record: 'Whether John Millar's doctrines were always right is one question; but that they were generally so, and that right doctrines could not be expounded by a better teacher, I believe is questioned by none who ever listened to him. His writings always seem to me to be imperfect casts of his mind, like those casts of sculpture which want the diaphanous polish of the original marble. I heard him when I was sixteen lecture on the Roman law. A

dry subject enough it would have been in common hands, but in his Heineccius was made a feast to the attention.'

The poet quitted the university in 1796, and became domesticated at Downie. He had previously been a member of a debating society, where the customary class of topics was discussed, and took a part in the proceedings. He gained two prizes for poems this year—one for a chorus in the 'Medea' of Euripides, the other for the 'Cecophora' of Aristophanes.

At Downie he became the tutor of Sir William Napier of Miliken; and here he had some leisure time, which he devoted to reading and writing. Here, too, he composed his lines entitled 'Love and Madness,' on the murder of her lover by a Miss Broderick. At Downie he was near a particular friend, the Rev. H. Paul of Inverary, and became intimate in the family of the 'Caroline' on whom he had written the verses at Sunipol. He and his friends used sometimes to dine together at the Inverary Arms; and on those occasions, as in after years, he exhibited all the joyousness of boyhood. He would talk of turning pilgrim in search of adventures— at that time a favourite notion with him. His friend Paul always prophesied he would be a great poet, saying, 'Thomas, from the way in which poetry is coming upon you, I see that whatever other profession you may try, that will be the one through which you will be distinguished.'

At Downie, Campbell seems to have dwelt upon his favourite pursuit, his first great work in poetry being designed there. Downie is a little way to the southward of the mouth of the Crinan Canal, at the southern end of Loch Fyne. The room which was the poet's study is still shown. From this place he returned to Glasgow in considerable depression of mind, owing to the gloom that rested upon his future prospects, and for a time he became indisposed. After a renewal of his preceding anxieties and conflicts between different professions, and finding reasons but too valid for again rejecting all, he determined to go to Edinburgh with little money in his pocket, but full of sanguine hopes. A wild notion of establishing a periodical, of writing for the booksellers, of getting into a lawyer's office, all passed through his inexperienced mind. He fancied, with that erroneous judgment which is the fruit of inexperience, that booksellers might be found to publish two of his translations from Euripides and Æschylus.

Such were the thoughts with which the poet set out. He reached Edinburgh, and tried his hand at the horrible drudgery of a copying law-clerk. He next obtained a place in another office, somewhat better, and got an introduction soon afterwards through accident to Dr Anderson, who was struck with the verses he had written in Mull, and desired to see their author. Upon this incident turned the after-fortunes of the poet. He was brought to Dr Anderson's house—his appearance, his handsome face and pleasing address, at once won the favour of the doctor, who was a highly-gifted, kind, and good man. Employment was found of a literary nature for the young poet by an introduction to Mundell the Edinburgh publisher. He also received an offer of twenty guineas to abridge Edwards's 'West Indies.' To complete his task he quitted his drudgery in the law office, anathematising the law, its speculations, toils, and meannesses. After giving his hearty thanks to Dr Anderson for his kindness towards him, he returned to Glasgow on foot; principally in the hope, which proved to be vain, of

meeting his second brother from South America, who was daily expected, and whom he had never beheld. He continued to employ himself with plans, always abortive, for literary undertakings, but proceeded with his abridgment of Edwards. In the same winter of 1797 he wrote the 'Wounded Hussar,' which was sung as a ballad about the streets of Glasgow, and which was originally composed for adaptation to the music of some Scottish melodies, for a lady at the house of whose father the poet was on a visit. He went to Cathcart this year, and paid a visit to a family where there were two young ladies named Hill, and Miss Grahame, a sister of the author of 'The Sabbath.' Here he wrote a poetical epistle to three ladies on the banks of the Cart; and about the same time he composed the 'Dirge of Wallace,' in a different manner from that in which it subsequently appeared. He altered, retouched, and made it in all respects a worthy poem in every estimation but his own.

Campbell returned from Glasgow to Edinburgh in his twentieth year, taking leave of his favourite professors at the university before he started, and getting his parents to promise, if possible, to take up their residence in Edinburgh near him. Still uncertain about his future pursuits, he set out on foot upon his journey. He had thoughts at times of going to the United States, of studying the law once more, and even physic again. There are few situations in life more painful than this kind of heart sickness from uncertainty—those conflicts of the spirit: to one of Campbell's sensitiveness this state was doubly grievous. He had now the booksellers' scanty patronage, and one or two pupils obtained in Edinburgh, for his sole dependence. These had been the sum of his prospects, when his attention was again drawn towards emigration by one of his brothers; and he began to prepare himself for taking his departure. The interference of another of his near relatives, however, frustrated his intention, and he turned towards Edinburgh once more, to resume his labour for the booksellers, and to take pupils.

It was now that he proceeded with the 'Pleasures of Hope' again, partly supporting himself by giving instructions in the Greek and Latin languages. He did not remain long without additions to the number of his friends. He became acquainted with Francis, afterwards Lord Jeffrey, who succeeded to the editorship of the 'Edinburgh Review' upon the resignation of Sydney Smith, with Thomas Brown, Henry Brougham, now Lord Brougham, and with Anne Bannerman. Then began an acquaintance with John Richardson, which ripened into a close and lasting friendship until death terminated it—the closest perhaps of all his friendships excepting that with Mr Thompson of Clithero, who had been his fellow-student, and with whom also he corresponded to the end of life. He renewed his intimacy with Grahame, author of 'The Sabbath,' who died in 1811. His father and mother removed to Edinburgh in 1798.

In the meantime the 'Pleasures of Hope' proceeded steadily. It was first proposed to publish it by subscription; but this design was abandoned, and Dr Anderson negotiated the publication with Mundell and Company. The price was two hundred copies of the work in quires, which would bring the author, if he could dispose of them at the full price, about fifty-six pounds, or, if otherwise, between forty and fifty. The author always said he received only 'fifty pounds,' and made no mention of the mode of payment;

but documents signed by himself, and dated July 13, 1799, are in existence, establishing the real arrangement. He had much vanity, which was wounded by a confession that he had received only paper for paper.

Dr Anderson, whose love of poetry and attachment to letters is well known from his publications, introduced the poet to several of his more intimate friends, at the houses of all of whom he became a welcome visitor. Dr Moore, whom he already knew, introduced him to Dugald Stewart; and he became acquainted with Mr Fletcher, an advocate of good standing; and likewise with Leyden. Campbell and Leyden were at first in close intimacy, but afterwards a quarrel arose between them, which terminated in little less than mutual hatred. The cause did not originate with the poet. Some one had said, speaking figuratively, in describing Campbell's first visit to Edinburgh in 1797, that his situation was so desperate that he thought he might as well drown himself. From this arose a report that he had been actually about to commit suicide. An Edinburgh paper reiterated this report after the poet's decease—namely, that Campbell had once been seen going to destroy himself, after having concealed himself, and been reduced to the verge of despair, and had been turned from his purpose by Dr Anderson. This was the revival of an untruth which the poet had contradicted at the time, and traced to its author Leyden, who denied it; but Campbell declared there was the clearest evidence against him. Hence it was that when Scott, who had been introduced to Campbell by Leyden, afterwards repeated 'Hohenlinden' to him, Leyden said, 'Dash it, man, tell the fellow that I hate him! But, dash him, he has written the finest verses that have been published these fifty years!' Scott conveyed the message faithfully, and got this reply from the poet: 'Tell Leyden that I detest him, but I know the value of his critical approbation!' This rests upon the testimony of Sir Walter Scott himself. Leyden and Erskine, the latter likewise an acquaintance of the poet's, went afterwards to India, and in literary pursuits were in some way connected there. 'When Leyden returns from the East,' said Campbell, 'what cannibals he will have eaten, and what tigers have torn to pieces!' There is no doubt he felt deeply wounded at the report alluded to. No one was more sensitive, had more latent vanity, or was more tremblingly alive to the opinions of the world about himself and his writings, than Campbell.

It would appear that while composing the 'Pleasures of Hope' he was nervous and restless in no inconsiderable degree; but much more so afterwards, when his success was expected to be complete, according to the evidence of his friends, who were undoubted judges of literary merit. While the work was going through the press, the alternations of hope and fear in his mind made him leap from deep gloom into sudden merriment, from despondency to joy, almost upon a breath. At one time he would think all he had written was worthless—he would be solitary, silent, and downcast. Anon he would be merry, and even uproarious, without any change of circumstances to account for it. Governed by the pressure of the thought that was uppermost at the moment, he yielded until it glided away, and another, perhaps of a character diametrically opposite, took its place. This fitful moodiness accompanied him more or less through life. The work of correcting and passing his poems through the press must have been a grievous task, from a natural impatience and habitual want of atten-

tion to such details. But when, brooding over his uncertain prospects, and the frustration of his former plans, he imagined that his poem might not be judged of by the world as his friends had judged of it, the result was a degree of excitement which could hardly be comprehended by one of a different temperament.

There were various passages in the 'Pleasures of Hope' written two and three times over. The hints of Dr Anderson made the poet exert himself. How much the labour of the author was taxed by the fastidiousness of the critic; how his feelings were elevated and depressed by that imagined lack of merit which is the best proof of its existence: all this must be left to the imagination of the sensitive and refined. At times he was observed sauntering alone, as was sometimes his custom in later years, unobservant of all around him, but evidently in deep thought, and employed in working out his verses mentally, or weaving flattering visions of success—for although possessing little energy, he was far from being unambitious.

The poet asserted, that although he was indebted to friends for their critical opinions, still the ideas and arrangement of the poem were his own—that here he relied wholly upon himself. He composed the different sections of the work separately, as there was no continuous story, and then arranged them in proper order. The 'Pleasures of Hope' began, in the original draught, in a very different manner from that in which it at present appears. In place of

'At summer eve, when heaven's ethereal bow
Spans with bright arch the glittering hills below,' &c.

it ran—

'Seven lingering moons have crossed the starry line'
Since Beauty's form, or Nature's face divine,
Had power the sombre of my soul to turn—
Had power to wake my strings and bid them burn.'

The whole of the original draught consists of only 400 lines, and has been preserved by a gentleman in Scotland in the poet's handwriting. Though full of beauty, it is but a mere foil to the printed poem, which exhibits in a remarkable manner the advantage of care and scholarship.

Campbell wanted just three months of completing his twenty-second year when the 'Pleasures of Hope' was published. It was enthusiastically received in the Scottish capital, and was as ardently welcomed in England. The young author found himself at once surrounded with new acquaintances, among the more celebrated characters of the day—Dr Gregory, Telford, Mackenzie, author of the 'Man of Feeling,' the Rev. A. Alison, Gillies, Laing, and others. Scott, whose name is delightful to every lover of literature, and than whom none had a more friendly heart, introduced him into his own circle of friends, all new to him. He was fêted and complimented on all sides. Dr Anderson, too, felt how grateful to the spirit is the reward of disinterested virtue: the poet's plaudits he shared, less conspicuously, but with a noble gratification to his own upright heart.

This astonishing success made the low terms on which the copyright had been parted with somewhat mortifying to the author. The conduct of Mundell and Company, the publishers, however, was highly praiseworthy. They presented him with £25 upon the appearance of every edition of a

thousand copies, and in this manner he received £150; nor were these presents discontinued until a misunderstanding arose between them. Messrs Mundell some time afterwards permitted Campbell to print an elegant edition in quarto for his own benefit, by subscription. This, the seventh edition, produced him of itself £600; so that, in the whole, he received little less than £900 for a poem of 1100 lines. In no previous instance did any poet ever derive so much money from his first production; nor would Campbell have done so in the ordinary routine of business.

In the same year Campbell planned a poem to be called the 'Queen of the North,' intended to be highly illustrated; but this came to nothing, like the other innumerable projects of his life. He also composed the verses in his published works entitled 'Gilderoy' in that year. The publication of the 'Pleasures of Hope,' and the incense of public praise which followed, cured the poet of all desire to emigrate to America. He complained of his own indolence in the midst of applauses that would have stirred others into activity. But the truth was, that none had ever laboured harder than he had done through youth to manhood, none had been so tried by painful uncertainties, and after such a great success it was but natural that the bow should for a little time at least be unstrung. Such an excuse, however, could be valid only for a season.

Edition after edition of the 'Pleasures of Hope' had sold. He now felt a desire to visit Germany, out of curiosity to see the literati of that country, and because he thought he was not yet able to appear in London to the best advantage. He projected 'writing a few more books' before visiting the British metropolis; and looked forward to delivering on his return from Germany a course of lectures on the belles lettres in London or Dublin, for he expressed his dislike at remaining long in one place. In his disposition he was restless and unsettled. In the pursuance of his design he embarked in June 1800 at Leith for Hamburg. It was only about a year previously that Scott had translated and published Goethe's 'Goetz von Berlichingen;' and the same author's 'Sorrows of Werter' were still in vogue, full of sentimentality, and not very pure morality. These had no doubt tended to heighten the poet's desire to visit the land from whence they had emanated, and to see their writers face to face. It was the taste of the day: everybody talked of Germany. His friend Richardson was to follow him, and they were to travel in company, visit remarkable places and individuals, and lay the result of all before the public. The 'Queen of the North,' the new poem, was to be finished during this foreign tour, however uncongenial continual movement might appear to poetical composition upon a local subject.

Having several letters of introduction to persons residing at Hamburg, he landed there after a few days' sail. His plan was to proceed to Ratisbon, in which city there was a Scottish college, and he could travel easily from thence to Vienna. He was introduced to the poet Klopstock, just two years before the decease of that veteran in his country's literature. This fine old German, who resided near Hamburg, was then seventy-seven years of age, a plain, unpretending man, of gentle manners, and kind disposition. Their conversation was carried on in Latin. A copy of the 'Pleasures of Hope' was presented to the venerable German by its author.

From Hamburg Campbell proceeded to Ratisbon, where he arrived in the beginning of August. He fell in with a division of Austrian troops on his way, marching into Bohemia, and arrived in Ratisbon only three days before it was entered by the victorious French, who had driven the Austrian general Klenau across the Danube.

At Ratisbon the poet was disappointed of a boat to take him down the Danube to Vienna. He visited the Benedictine monks of St. James, who received him kindly, and he witnessed the retreat of the Hungarians covering the retiring Austrian army, heard the distant artillery, and saw some skirmishing between the advanced forces and the Austrian rear. He stood among the monks, and observed a charge of Austrian cavalry made upon the French just without the city walls. Under these a battery of guns drew up, which fired during the action, and several men were killed in the poet's sight. This view of the dead and dying filled his mind afterwards at times with fearful images.

The poet was much pleased with the French officers, whom he described as 'famous fellows,' highly popular among the citizens. They were thus friendly at a time when the English newspapers were describing them as monsters, dishonest, tyrannical, and everywhere detested for their cruelties. The poet made excursions from the city over the ground where the engagement had taken place, and ventured to scale the heights whence, after the last battle, the Austrians were driven over the Danube. He was now in a great measure dependent upon his gratuitous receipts from Mundell and Company, and upon a newspaper correspondence with Perry for the 'Morning Chronicle.' A French field-officer gave him a protection to pass through the army of General Moreau; and he was presented to Madame Moreau when visiting Munich, from whence he returned to Ratisbon by the valley of the Isar, without proceeding, as he had intended, to Vienna. Seeing no chance but of the renewal of hostilities, and not knowing how far his personal safety might be compromised if he proceeded, according to his original intention, or even if he remained at Ratisbon, he returned by Leipsic to Hamburg, and took up his residence at Altona in November.

Once more at Hamburg among the friends whom he had made there when he first arrived, he planned excursions into Hungary and elsewhere which he never made, and literary works which went no further than the ideal outline. During his first visit he had become acquainted with Anthony McCann, one of those whom the Irish government of 1798 had driven into exile on the charge of being concerned in rebellion. There were several other refugees there at that time, who often used to meet together and spend a convivial hour. Campbell was particularly struck with McCann, who was an honest, upright, uncompromising lover of his country. Seeing him walking low-spirited and pensive near the river, the poet gave the impressions he felt at the sight in those beautiful stanzas, unsurpassed in pathos and touching sentiment, 'The Exile of Erin.' At Hamburg he wrote thirteen or fourteen different pieces of poetry, of which he admitted only four into his published works—namely, 'The Exile of Erin,' 'Lines on Visiting a Scene in Argyleshire,' 'The Beech-Tree's Petition,' and an 'Ode to Winter,' which originally appeared in the 'Morning Chronicle.' In that paper, too, appeared 'Ye Mariners of England.'

Of various statements made by the poet relative to the scenes he wit-

nessed during the short space that hostilities continued while he was on the Danube, no connected account can be made out. It was generally said that he had been on the field at Hohenlinden the day after the battle. This could not have been the case, because the poet was in Altona at the time. He had witnessed a battle, however, from Ratisbon, which took place without the walls, as already stated. Hohenlinden might have been mistaken for Ratisbon or some other place; but at anyrate it is indisputable, on the evidence of friends who have survived him, that he spoke of crossing a field of battle on or during snow, and that the vehicle in which he was seated was left by the driver for the purpose of collecting the tails of the horses lying on the field. Having accumulated a considerable quantity of this singular booty, he now piled them on the carriage, and they proceeded. It is certain, too, that he spoke of the different appearances of the bodies on the field, both the Germans and French; and to one friend he mentioned having seen some of the French cavalry wipe their gory swords on their horses' tails. He made several short excursions from the city, besides visiting Munich and Salzburg, and was on the battlefield of Ingolstadt, which place he saw in ruins.

The poet was still at Altona in the beginning of 1801, when Lord Nelson visited Hamburg. He composed his lines on 'Judith of Altona' there, his 'Ode to Content,' and some other pieces. He reckoned upon being soon joined by his friend Richardson, and on setting out upon his travels anew, when he found that hostilities were about to commence between England and Denmark. Nelson with his fleet was already in the Sound. Altona was no longer safe as a residence for Englishmen, and the poet embarked in all haste for England. The vessel in which he took his passage was chased into Yarmouth by a privateer, and landing there, he proceeded to London, having but a few shillings in his pocket. There he called on Perry of the 'Morning Chronicle,' who introduced him to Lord Holland, Sir James Mackintosh, Rogers, and others, at a club to which they all belonged, and he was beginning to congratulate himself upon his good fortune, when he received the news from Edinburgh of his father's decease. Dr Anderson had paid great attention to his father during his latter days, and Campbell gratefully acknowledged his kindness. 'You have known and forgiven many errors of my life, my dearly valued friend. You know withal that my feelings, though turbulent, are sincere. I ever esteemed—I now most deeply *feel*—the value of your friendship. What I would say overcomes my power of expression. To have been the guardian of my dying father, and the comforter of my mother, was more than I deserved, and all that I could have wished from a friend. When my heart has done penance for being so far away from the last duties I owed to the best of men, I shall recover tranquillity.'

The poet next visited Edinburgh, and went by sea. One of the passengers told him that he had been arrested on a charge of high treason, and sent to the Tower; and the disgraceful system of espionage then commonly used by the government had been extended to Campbell. His letters from the continent had no doubt been opened, and sealed up again; for a suspicious sentence in those days was enough to put a man on trial for his life. He found his mother in great fears for his safety; but he went at once to the sheriff, who told him there was a warrant out against him for

high treason—that he had been conspiring with General Moreau and the Irish exiles to land troops in Ireland! Campbell laughed outright, and asked the sheriff if he could credit such an absurdity, as that a youth like himself should conspire against the British empire. The reply was, that he had attended Jacobin clubs in Hamburg, and was a passenger in the same vessel with one Donovan, who had commanded a regiment three years before at Vinegar Hill. The poet declared he had never heard of Jacobin clubs at Hamburg, and knew nothing of Donovan until he saw him upon the deck of the vessel. He demanded that the matter should be minutely investigated; and the sheriff fixed the time. The harpies of the spy system at Yarmouth had seized a box which the poet had sent from that place to Edinburgh, and its contents were examined, when among them was found the draught of ‘Ye Mariners of England!’ The sheriff said something indignantly about Hamburg spies, and a bottle of wine wound up the affair.

Campbell found his mother's circumstances bad, and though with little means of his own, he determined to do all he could to relieve them. Mundell and Company occasionally paid her small sums due to him by his directions. Perry of the ‘Morning Chronicle’ had paid him with a liberal hand. But however he might straiten himself, he resolved that his mother, and his sisters residing with her, should never cause his conscience a reproach on the score of want of attention. Scanty as his resources were he shared them with his family. He solicited subscriptions for the new edition of the ‘Pleasures of Hope,’ which Mundell and Company had conceded to him. He composed some verses under the title of the ‘Mobiade,’ in consequence of the riots of the fishwomen in Scotland about the high price of bread; but they possessed none of the humour which their author intended. He had no skill in humorous composition, although he would not admit his deficiency. But no one could relate a humorous incident with more effect. He was introduced to Lord Minto by Dugald Stewart, and a friendly intercourse commenced between them, which continued until the peer's decease in 1814. His lordship invited him to his house in London, and Campbell determined to avail himself of so favourable an opportunity to visit again the metropolis of the empire. He set out by way of Liverpool, and there made acquaintance with Dr Currie, and with the justly-celebrated Roscoe. He afterwards reached Lord Minto's house in Hanover Street, and while there occasionally acted as his amanuensis. He had a room appropriated to his use, superintended the printing of his splendid quarto of the ‘Pleasures of Hope’ by Bensley, and was introduced into the best literary society of the metropolis. He occasionally visited Mrs Siddons and her brother John, the latter of whom he had previously known. His admiration for Mrs Siddons was constant and extraordinary. All the poet's friends indeed were exceptions to the rest of mankind; but Mrs Siddons was supernal. Another intimate friend was Mr Telford the engineer. ‘Lochiel’ and ‘Hohenlinden’ were written at this time, intended for his quarto then in hand; but he printed them anonymously, and inscribed them to Mr Alisop. It was a remarkable proof of the poet's instability of mind, that when he published his poems afterwards in a collected form he discarded his previous dedications as preposterous things. Yet in his latter years he adopted them again.

In August 1802 he left London on a visit to Lord Minto at Minto in Scotland. While there he wrote to Scott to express his delight at the verses upon Cadzow Castle. His superb edition of the 'Pleasures of Hope,' in quarto, was still unfinished. His literary labour at this time, besides the task of correction, was the compilation of a prose work called the 'Annals of Great Britain,' in three volumes, for which he was to receive £300. The work was to appear without his name, as he said it was 'written for employment.' This was well, because it was not at all calculated to increase the literary reputation of its author, and fell stillborn from the press. Campbell quitted Edinburgh for London again in March 1803, proceeding first to Liverpool, where he spent ten days visiting his friends Roscoe and Currie. He remained a few days with another friend, Mr Stevenson, at the Potteries in Staffordshire, and made there the acquaintance of the celebrated Wedgwood, to whose taste so much is due for the improvement of British pottery. On reaching London, he first lodged with his friend Mr Telford the engineer, whose quarters were at the Salopian at Charing Cross. From some reason not given, Mr Telford thought that his experience and friendly care might be useful to his young and ardent friend, flung upon a great city without a home.

The poet was not at first reconciled to the noise and never-ending confusion of the metropolis. He complained of headaches and want of rest, in announcing which to his friends in the north, he added that Leyden, with whom he had quarrelled, had been 'dubbed doctor, and had gone to diminish the population of India.' He next took lodgings at 61 South Molton Street, where he completed the correction of his splendid quarto.

Everything now looked bright in the poet's imagination, and marriage alone seemed wanting to complete his happiness. This golden consummation was at hand. He had become enamoured of his cousin Matilda Sinclair, the daughter of Mr Sinclair, once a merchant of Greenock, but then in business in Trinity Square, in the city of London, and he led her to the altar on the 10th of September 1803. She was handsome, lively, under the middle size in person, had fine dark eyes, and something of the Scotch patois in speaking. The newly-married pair lived first at 35 in Upper Eaton Street, Pimlico; where the commencement of the marriage state, domestic comfort, and the novelty of his position, seem to have had a happy effect upon the poet's mind. Horner, his old friend, remarked to Lady Mackintosh, that matrimony had made a great improvement in his manners and temper. Of all men Campbell stood most in need of a home. He had till then been a wanderer, and regular in nothing. He was now fixed, and during the period of his married life he was unquestionably very different in his habits and in the society he kept from what he afterwards became. Horner seems to hint at his bachelorhood being open to the same remarks as his widowhood; and himself spoke of his early Edinburgh indulgences as having been rather too lively, and of his having escaped them in London.

The son who survives him, Thomas Telford Campbell, was born June 2, 1804, in Eaton Street. The description of his child to his friends at this time was full of kindness mingled with apprehension. 'Oh,' said he, 'that I were sure he would live to the days when I could take him on

my knee and feel the strong plumpness of childishness waxing into vigorous youth! My poor boy! shall I have the ecstasy of teaching him thoughts, and knowledge, and reciprocity of love to me? It is bold to enter into futurity so far! Alas! how differently the poet was destined to look upon that son nearly twenty years afterwards!

He took a plain brick-house at Sydenham in Kent in 1804: it was the last of a row on the side of a hill, and had nothing but its retired situation to recommend it. He was then in his twenty-seventh year. He became indisposed just after his removal, and was advised by Sir James Mackintosh to drink water, and abstain from all fermented liquors, in order to strengthen his nerves. This he did for some time, but found no benefit from the change; for his mental labour, before his frame had been knit into manhood, had been too severe; and this had communicated a certain debility to his nervous system which was never removed, and which his careless regimen did not tend to counteract or diminish. Over-excitement of the mind in youth is continually traced in some form or another throughout life. To this perhaps is to be attributed the early exhaustion of the poet's genius, and his subsequent indolence as to literary labour. He translated the foreign papers for the 'Star' this year at £200 per annum; and wrote in the 'Philosophical Magazine.'

Campbell's second son, Alison, was born upon the 2d of June 1805, just a year after his brother Thomas Telford. He described his two sons—the one about a twelvemonth, and the other a few weeks old—in a letter to Mr Alison in a style of some humour. 'Your beloved namesake is growing a sweet and beautiful child. The elder Telford I am sorry to send you less favourable accounts of. Don't alarm yourself, however, for his health: it is his moral disposition which is become rude and savage. He talks a language like man in his pristine state of barbarity, consisting of unmodulated and indefinite sounds. He is rapacious, and would eat bread and milk until the day of judgment; but he is obliged to stint his stomach to five loaves, and as many pints of milk per diem, besides occasional repasts. He is mischievous, and watches every opportunity to poke out little Alison's eyes, and tear the unformed nose from his face. He had not been christened, but only named, till Alison and he were converted to Christianity together. The watering of the young plants was a very uncommon scene. Telford scolded the clergyman, and dashed down the bowl with one smash of his Herculean arms. He continued boasting and scolding the priest till a wild cry of "Y-a-men" from the clerk astonished him into silence. The first meeting of Telford and his young friend was diverting. Telford had seen no live animal of the same size, except the lambs on the common, which he had been taught to salute by the appellation of *B-a-a!* This was for some time his nickname for your namesake.'

Campbell was offered the Regent's Chair in the university of Wilna in Russian-Poland, and was very near accepting it, as 'the wood and Botany Bay were preferable to *uncertainty* at home:' he was deterred solely by the fear of Russian despotism. It was a singular event that he should, many years subsequently, have had a professorship in the same country at his disposal, which he tended to his literary coadjutor. He remarked of his literary labour at this time, very close to the state of facts with most literary men, 'I get through a tenth of my labour in one day, but innumerable inter-

ruptions occur. What was written to-day, may have to be re-written to-morrow. The grocer who sells a pound of figs and puts a shilling, including threepence profit, into his till, is a more gainful vocation.' 'Lord Ullin's Daughter,' 'The Turkish Lady,' and 'The Soldier's Daughter' were written this year; and the 'Battle of the Baltic' reduced to a mere moiety of the original sketch.

He now projected an edition of the British poets; and as Scott had adopted the same idea, they thought of bringing it out jointly. Both insisted upon inserting lives which the booksellers opposed; and this interference put a stop to a most valuable collection of the poets by two distinguished poets—a loss never to be repaired. The men of trade in consequence applied to a hack to bring out an edition for £300, which gave rise to the publication of the 'Specimens of the British Poets' thirteen years afterwards by Campbell alone. In 1805 a collection of Irish melodies was projected by him, which went no farther in his hands, but was afterwards nobly carried out by Moore. In the meantime his 'Annals' were still unfinished, when, in October 1805, it was announced that a pension of £200 per annum had been granted to him, as was generally supposed through the interest of Lord Minto. He imagined it was through Fox and Lord Holland; but Pitt was then in office, and Campbell was an avowed disciple of the Whigs. The minister, on the other hand, only three weeks before his decease, put his name down as a subscriber for the poet's works. Fees and income-tax reduced the pension to £168 per annum. The poet met Fox for the first time the year following at Lord Holland's. The statesman was then in office, and invited Campbell to St Ann's Hill, but died before the latter had an opportunity of accepting the invitation. The poet revised an edition of 'Johnson's Lives of the Poets' this year; and Mr Murray, wiser than his brother booksellers had been before, offered Campbell and Scott £1000 for the lives of the poets on their old plan; but the latter was now too much engaged to undertake any portion of the labour. Campbell, for the most part, lived retired at Sydenham during 1806. He had complained that too much conviviality made him feel worse, and yet company continually led him into it. He remarked that he had had warning he should not be a Methuselah.

The next publication of Campbell's was a step gained in poetical beauty even upon the 'Pleasures of Hope.' It was not so exquisitely worked up and polished; but in sentiment and subject it was superior. The 'Pleasures of Hope' was didactic. It contained touching passages, but had no continuity of story, which, though feeble in 'Gertrude of Wyoming,' enhances the interest of the poem. It may therefore be considered a superior development of the poet's skill: in fact, the highest flight his muse ever essayed. This was his own opinion, although the infallibility of the judgment of writers in regard to the merit of their own productions can never be admitted. In the same volume in which 'Gertrude of Wyoming' was printed, there were included the two noble odes of the 'Battle of the Baltic' and the 'Mariners of England,' together with 'Hohenlinden,' 'Glenara,' 'Lord Ullin's Daughter,' and 'O'Connor's Child;' composing a collection of poetry by one individual so fresh, so varied, and of a merit so rare, that it may be questioned if works

of such enduring excellence ever before appeared at one time in a single publication of any of our poets. The lapse of years since has but confirmed the opinion of the excellence of these poems, which have never diminished in public estimation from the day on which they first saw the light. It may be questioned whether, after such works, destined to exist as long as the language in which they are written—a language becoming almost universally vernacular—enough had not been achieved for the fame of one individual. At anyrate the efforts thus made seem to have exhausted the poet's powers; and some half-a-dozen short pieces more, written during the next thirty years of his life, although beautiful in language, made no approach in power to their predecessors. The diversities of genius upon record show some of its sons destined to continue to delight mankind from youth to age, while others flame out at once, and darken to the end. Waller wrote as well at eighty as at twenty: Dryden wrote nothing worthy of his name until he was between thirty and forty: in Campbell the poetical intensity was ardent for a limited period: all his better works were published before he was thirty-two.

'Gertrude of Wyoming' was completed in 1808, and published in 1809; and a second edition followed the next year. The story is deficient in invention, in which the other works of the poet show that he did not shine. There is enough to carry the simple details required, but no more; and the excellences consist in an all-pervading sweetness and tenderness of handling, in the purity of the sentiment, the richness and splendour, and the pointed vigour displayed in many of the passages. If it does not sparkle like the 'Pleasures of Hope,' or attract so much by its polish and the artifice of its verse, it possesses a wider range of vision, and touches more deeply the sympathies of the reader.

When Jeffrey read 'Gertrude,' he wrote to the author, and with that perspicacity which so well adapted him for the post of a reviewer, said that the poem ended abruptly. 'Not but that there is great spirit in the description,' he added, 'but a spirit not quite suitable to the soft and soothing tenor of the poem. The most dangerous faults, however, are your faults of diction. There is still a good deal of obscurity in many passages, and in others a strained and unnatural expression—an appearance of labour and hardness. You have hammered the metal in some places till it has lost all its ductility. These are not great faults, but they are blemishes; and as dunces will find them out, noodles will see them when they are pointed to. I wish you had had courage to correct or rather avoid them; for with you they are faults of over-finishing, not of negligence. I have another fault to charge you with in private, for which I am more angry than all the rest. Your timidity, or fastidiousness, or some other knavish quality, will not let you give your conceptions glowing, and bold, and powerful, as they present themselves; but you must chasten, and refine, and soften them forsooth, till half their nature and grandeur is chiselled away from them.' This was a sound advice, friendly, and worthy of the critic. This criticism came home to the poet's faults, which in his better days were too close an adherence to that nicety of verbal polish and disregard of the more manly sense, which are distinguishing traits of university practice in exercise and translation. There were other errors. In the 'Pleasures of Hope' he had introduced panthers on the shores of Lake Erie;

but there is no such animal in the United States—the ounce-like creature the cougar or jaguar, and the puma, in the south, not being the panthers or leopards of the old world, but a distinct species, although the Yankees may confound the names. Then the flamingo, the aloe, and palm-tree of the tropics are placed in the severe climate of Pennsylvania, in which plants that flourish well in England perish during the intensity of its winter. These, however, were blemishes which only served to set off the merits of the poem in other respects. The ‘*Edinburgh Review*’ passed high encomiums upon it; Dugald Stewart was delighted with it; Mr Alison conveyed to the author the admiration of his Edinburgh friends in glowing colours. The poet wrote in consequence to a friend—‘Alison’s letter is a thing belonging to the heart. Poor Stewart’s tears are at present no certain test; his great, but always susceptible mind, is reduced, I daresay, to almost puerile weakness, if I may say it with due reverence to his name’ (he was suffering under a domestic affliction). ‘Now, let me ask, is it very great ostentation to betray the first symptoms of doubtful success to you? To you who are so dear to my heart that you will excuse even its foibles? I must not exclude your family from hearing something of “Gertrude.” Ay, ay, I am like the whale in the gulf of Malström, I feel myself getting into the whirlpool of vanity in communicating the puff from Alison. I may roar and repent, but into the gulf I *must* go! But I love you very much, and that is the reason I do not fear you. Say your worst, bating that I am a silly, vain creature—bite my nails, &c.—bray much about Montague Street, when I have dined—and envy Sydney Smith! Except these faults, I defy you to say black is the white of my eye!’

In 1811 Campbell was invited to give five lectures at the Royal Institution, and having consented, set about preparing them. Two were to be delivered before Easter 1812, and three after, for which he was to receive a hundred guineas. He seems at this time to have had as much work upon his hands as he could well get through. His mother’s death took place in February. He said that he felt more at the news of her first shock of the palsy than at her decease. ‘It is only,’ said he, ‘when I imagine her alive in my dreams that I feel strongly on the subject.’ In the meanwhile the time approached for the delivery of his lectures. The first was on the principles of poetry; then upon Hebrew and Greek poetry, two lectures; the fourth on the troubadour and Italian poetry; the fifth on the French theatre, and on English poets and poetry. Sir Humphrey Davy had borne off the palm from all preceding lecturers at the institution, particularly with the fair sex, principally owing to the illustration of his subject by numerous pleasing experiments; but Campbell came off well, though he felt no little timid anxiety about the result. Describing his first lecture, he observed, ‘Archdeacon Nares fidgetted about and said, “That’s new, at least quite new to me.” I could not look in my friend’s face; and I threatened to divorce my wife if she came. All friends struck me blind, except my chieftain’s lovely daughter, and now next-door neighbour on the common, Lady Charlotte Campbell. I thought she had a feudal right to have the lecturer’s looks to herself. But chiefly did I repose my awkward eyes on the face of a little yellow unknown man, with a face and a smile of approbation indescribably ludicrous.’

The poet now became a visitor at the residence of the unfortunate Queen

Caroline, at Blackheath, danced reels with royalty, attended operas, and for a season was as gay as his nature permitted. He denied that there was anything coarse or indelicate about the queen's conduct. He seems to have thought of her precisely as Canning did. He described her as good-humoured, kind-hearted, acute, *naïve*, and entertaining, but as blundering so comically in speaking English as to be almost equivocal at times. In 1812 he seems to have made the acquaintance of Thomas Hill, at Sydenham. There, too, congregated the two Smiths, James and Horace, Theodore Hook, Mathews, Du Bois, and other choice spirits of the time, the poet being as lively as the gayest of them.

The next year Madame de Staël visited England from Sweden, and took up her residence in Argyle Street. She wrote to the poet from Stockholm, speaking of the pleasure she had derived from reading the *Episode of Ellinore* in the 'Pleasures of Hope.' He had previously offered to superintend the translation of a work she was bringing out. He greatly feared, about the same time, that a pleurisy with which he was attacked would disable him from proceeding with his lectures; but he recovered, and delivered a second course with great *éclat*. It was observed that he was uneven in his enunciation. 'Campbell,' says Byron of him at this time, 'looks well, seems pleased, and dresses sprucely. A blue coat becomes him; so does his new wig.' (He was bald at twenty-four years old.) 'He really looked as if Apollo had sent him a birthday suit, or a wedding-garment.' Mrs Grant said of him, 'He is one who has suffered much from neither understanding the world nor being understood by it. He encountered every evil of poverty but that of being ashamed of his circumstances; in that respect he was nobly indifferent to opinion, and his good, gentle, patient, little wife was so frugal, so simple, and so sweet-tempered, that she disarmed poverty itself of half its evils.'

It would appear that Coleridge had lectured against Campbell's poetry two or three years before the latter appeared at the Royal Institution, at least such was the statement of Byron, on the authority of Rogers. 'We are going to hear that Manichean,' adds the noble bard. Campbell, who was very sensitive about such attacks, felt little good-will afterwards towards Coleridge, who attacked everything and everybody for the sake of talking. It was wonderful how far Campbell carried this kind of antipathy, nor did he ever trouble himself whether the matter that gave him offence was well or ill-founded. His introduction to Byron took place at the table of Rogers, on whom he had accidentally called, where Moore and Byron had previously been invited to meet, to clear up some misunderstanding. It was rarely that four such men, poets of so high a reputation, had met together and alone.

In 1813 he visited Brighton for the benefit of his health. He kept a light sort of diary upon this occasion, but it had no real humour. Here he met Dr Herschel, and was much struck with some of his hypotheses respecting the heavenly bodies; subjects with which Campbell himself does not appear to have been very familiar, since he mistook the obvious meaning of the astronomer.

When peace returned in 1814 Campbell visited Paris, and found there Madame de Staël, with Mrs Siddons and her brother John, for whom he had such a strong, unabated friendship. He visited the Galleries of Art; he

dined with Humboldt and Schlegel; and was introduced to the Duke of Wellington as 'Mr Campbell.' The duke passed over the introduction as a matter of course, supposing the poet, as he himself observed, to be one of the thousand of that name; but when he found his mistake he took down the poet's address, stating that he was sorry he was not sooner undeceived. Campbell had numerous conversations with Schlegel, in which they differed considerably upon the mode of studying philosophy; and these friendly contests were afterwards carried on in England, during Schlegel's visits, with the same warmth and the same futility. He was struck with the Apollo Belvidere in the Louvre, and confessed that its busts he had before seen with indifference. This he attributed to his inexperience in art; for although versed in the principles, he was by no means a judge of the details of artistic objects, his ideas having been formed by reading, not by the study of the objects themselves.

Campbell remained in Paris two months, and then returned to London. There is an epitaph to the memory of Mrs Shute of Sydenham, and her two daughters, who were drowned at Chepstow, written by him this year, and engraved on their monument in Monkton Combe, Somerset, which has not appeared in his works:—

' In deep submission to the Will above,
Yet with no common cause for human tears,
This stone to the lost partner of his love,
And for his children lost, a mourner rears.
One fatal moment, one o'erwhelming doom,
Tore, threefold, from his heart the ties of earth:
His Mary, Margaret, in their early bloom,
And her who gave them life and taught them worth.
Farewell, ye broken pillars of my fate!
My life's companion, and my two first-born;
Yet while this silent stone I consecrate
To conjugal, paternal, love forlorn—
Oh may each passer-by the lesson learn,
Which can alone the bleeding heart sustain,
Where friendship weeps at virtue's funeral urn,
That to the pure in heart to die is gain!'

In 1815 Campbell visited Scotland. On his return he used all his interest to patronise Mrs Allsop, the daughter of Mrs Jordan, who had come out upon the London stage. It appeared that she wanted expression on the boards. But through Lord Byron our poet procured for her a stage engagement of considerable advantage.

In 1816 Sir Walter Scott, with that kindness towards his brother labourers in literature which ever distinguished him, suggested a plan to obtain two classes for Campbell in the university of Edinburgh, which might be made lucrative. His plan, however, came to nothing.

Campbell now proceeded towards the completion of his 'Specimens of the Poets' for Mr Murray, which had proceeded very slowly. There was a proposal by Mr Murray regarding the publication of his lectures prior to the 'Specimens.' What became of the lectures alluded to is not clear; but the poet afterwards recomposed them for the 'New Monthly Magazine,' in which it was stipulated they should appear. A very small portion of the seven volumes of the 'Specimens,' which were not published

until 1819, is original matter, and the errors in the first edition were very considerable. Mr Murray had only engaged to give the poet £500 for his labours; but he generously doubled the amount, besides presents of books worth £200 more. Campbell had expected a second edition of this work three or four years after it was published; for it seems he applied to his coadjutor in the 'New Monthly,' when he became editor of that periodical, for a life of Dr Wolcot (Peter Pindar), whom he considered to be one of the most original of English poets, although he had neglected him for want of materials, of which his friend, he knew, had possession. The 'Specimens' did not come to a second edition till 1841, when, on being applied to for the correction of the numerous errors in biographical and bibliographical information which existed in the former edition, the poet refused to make them. The generous conduct of Mr Murray merited a better return. These errors were generally in dates, and about localities, arising from want of care or from oversight. This duty was obliged to be performed by another. But at the time alluded to (1841), the poet's mental powers were in rapid decadence, and his horror of such labour was proverbial. The essay prefixed to the work is one of Campbell's best prose productions.

In a conversation between Scott and Washington Irving, Scott said of Campbell, 'He don't know or won't trust his own strength. Even when he has done a thing well, he has often misgivings about it. He left out several fine passages in "Lochiel," but I got him to restore some of them. What a grand idea is that about prophetic boding, or, in common parlance, second sight--

"Coming events cast their shadows before!"

It is a noble thought, and nobly expressed. And there's that glorious little poem, too, of "Hohenlinden." After he had written it he did not seem to think much of it—"Damned drum-and-trumpet lines!" I got him to recite it to me; and I believe the delight I felt and expressed had an effect in inducing him to print it. The fact is, Campbell is in a manner a bugbear to himself. The brightness of his early success is a detriment to all his further efforts. He is afraid of the shadow that his own fame casts before him.'

In 1817 he lost his friend Francis Horner, and this year made an acquaintance with Crabbe at Holland House. Crabbe, Rogers, and Moore, afterwards dined with him at Sydenham, making a second repast of a similar character at which four distinguished poets had figured together. The former had taken place at Rogers's, where Byron took the place of Crabbe.

The poet was much attached to clubs, and had belonged to several both in England and Scotland. He proposed one, to be called the Bees' or Poets' Club; but Perry of the 'Chronicle' put an end to the scheme by saying people would call it the 'Wasps.' Campbell, daunted at once by the chance of being made ridiculous, gave up the project.

He wrote some lines in 1817 upon the death of the Princess Charlotte, with which Prince Leopold was much pleased. He continued to work on his 'Specimens' in 1818; Roscoe of Liverpool solicited him to lecture there in 1819. He accepted the terms, went down, and was enthusiastically received. He profited by these lectures to the amount of £350. He also

received £100 for delivering them at Birmingham on his way back to town. At Birmingham, too, he visited the two Watts, father and son; the elder being then in the last year of his useful and protracted life. A younger son, named Gregory, who died early, was the class-fellow and friend of the poet at Glasgow college.

A passage in the 'Essay on English Poetry' in the 'Specimens,' produced a remarkable discussion. Campbell had censured the Rev. Mr Bowles for undervaluing the merit of Pope; and Bowles rejoined in a letter to Campbell, in defence of what were called his 'invariable principles of poetry.' Campbell's usual indolence prevented his replying otherwise than by a note affixed to one of his poetical lectures; but Byron, Roscoe, Gilchrist, and others not so fond of pleading a want of leisure which did not exist, took up the affair; and the original disputant remained an unconcerned spectator of the contest he had provoked and cooled upon, which was always his manner to avoid trouble. The admission of Bowles's theory was to degrade Pope from his high poetical station, and was unquestionably pushed too far. His argument was, that images drawn from the sublime and beautiful in nature are more poetical than any drawn from art, and that those passions of the heart which belong to nature in general are more adapted to the higher order of poetry than those derived from transient manners. So far might be admitted; but Bowles travelled further, and intimated that the mere presence of such images was to determine the merits of the poet, with little regard to the skill in working up the materials. In this dispute which Campbell had raised, and then looked upon so quietly as it proceeded, even the old juriconsult, Jeremy Bentham, mingled himself. It was clear that no system of exclusion could be true. Was the enchanter who called up at his own will the most beautiful visions, and peopled with their own creations the mighty void, to be reduced to the level of him whose only merit consisted in the selection of a happier theme? Under Bowles's principles the Venus de Medicis could not be natural, because that statue is composed of the most perfect portions of the female form, too perfect for existing nature.

Campbell proposed next to extend his lectures, and print them in two quarto volumes, making extracts to aid him at Bonn, whither he intended to go, and where he should find W. A. Schlegel. He completed the delivery of a second course of his lectures in May. He signed a document, binding himself to undertake the editorship of the 'New Monthly Magazine' in December 1820, so as to commence on the 1st of January following; the lectures, or twelve of them, to be inserted without charge, and his salary to be £600 per annum for three years. He then embarked for Germany by way of Rotterdam, and visited likewise Haarlem, Amsterdam, and the Hague. He found Schlegel at Bonn, who gave him a hearty welcome, and introduced him to several other professors of note. At Frankfurt he left his wife and son, and proceeded from thence to Ratisbon, over the ground where the battle he saw in 1800 had been fought, and where Napoleon fought a much more important one ten years afterwards. He visited the Scotch College, and found only two of the brotherhood surviving out of a dozen he had known there twenty years before. He left Ratisbon in a boat on the Danube for Vienna. There he hired apartments, nobly furnished, for four pounds a month. He climbed to the summit of St Stephen's

spire, and looked over the field of Aspern and the Isle of Lobau, so renowned in warfare. He was welcomed as a celebrity by the learned of Vienna, and his 'Mariners of England,' and most of his shorter pieces, he found translated into German. He returned to Bonn from Vienna by way of Frankfort—leaving his son under the care of Dr Meyer at Bonn, to proceed with his education—and reached home with Mrs Campbell towards the end of November 1820. Between Dover and London the coach was overturned, and he received so severe an injury in the shoulder, that he was compelled to remain at an inn on the road for several days.

He now began to think of the duties of his editorship. They were of a character wholly novel to him; for although his high acquirements and pure taste enabled him to select the best matter in a literary sense, yet to combine a pleasing variety of articles was to him a formidable undertaking. He wanted tact; and although setting about his task with the ardour which marked his conduct at the commencement of any new undertaking, he became impatient under it. His labours began in December 1820, but it was the middle of the month before anything but his own lecture and poetry was ready. He felt the task confuse him; and as the publisher had promised to provide a sub-editor, the necessary personage was found in Edward du Bois, the author of 'My Pocket-Book,' which had led to a lawsuit many years before, in which Lord Ellenborough and a jury clearly vindicated the rights of literary criticism. This gentleman was well versed in periodical literature. The small print of the magazine was committed to a separate hand—that of Cyrus Redding. In this way the first number appeared. Du Bois, who soon perceived that the poet had had no practice in periodical literature, gave him his opinions too freely upon some points of moment; and although they had been well acquainted, for Du Bois used to make one of the Sydenham guests at Thomas Hill's, Campbell declared he could not proceed with his sub-editor. Mr Redding therefore added to his own previous duties the assistance of Campbell in his portion of the labour; and the periodical proceeded to the satisfaction of everybody concerned during ten years, distancing all its competitors.

The poet, loath to leave it, kept his house at Sydenham for nearly two years after his editorship began, lodging first in Margaret Street, Cavendish Square, and then in Foley Place. Here his son returned to him with symptoms of incipient insanity. He resigned, with feelings of considerable regret, his country domicile, so much endeared to him in recollection, and took a house in Upper Seymour Street West, near Connaught Place.

It was a singular circumstance that the poet had never inquired about the politics of the work he had undertaken to manage. These had been Ultra Tory; and many of his old friends, in consequence, evaded giving him assistance when he requested it of them. It was not to be supposed that Campbell would support the old principles of the magazine, but the truth was, that he had thought nothing about them. Perry of the 'Morning Chronicle,' who was an old friend of the poet, never mentioned the subject to him; but told a friend that he must be excused for doing anything in behalf of the magazine, because it had stolen the title of another work for party purposes. Attack sentiments and principles, he said, it was all right. There was a 'New Times' started against the 'Times.' 'How should I,' said Perry, 'like a "New Morning Chronicle" to be started,

evading the law by adding a word for that purpose? I know Campbell had nothing to do with that: it was before his time. He will not, I know, support its old sentiments, but it is sanctioning a bad principle.' Campbell confessed that the matter had never crossed his mind; and this was perfectly in unison with his character. The work flourished notwithstanding, but few of the poet's old Whig friends became contributors. His contributions were comparatively few besides his lectures. These were of high excellence, perhaps too learned for general readers. They were written in that neat and pure style which their author exhibited in prose as well as verse. He was sometimes so assiduous in the perfect completion of a sentence, that there seemed a forgetfulness of connection. He generally perfected in his mind the sentence he thus wrote before committing it to paper, but would sometimes even then repolish and alter, so that composition was exceedingly laborious to him. Besides his lectures, he published about thirty pieces of poetry during his ten years' editorship. Of these 'The Rainbow,' the 'Last Man,' 'A Dream,' and his stanzas beginning 'Men of England,' are the best. Some of these pieces only consisted of a few lines.

The prose contributions of Campbell to the magazine, besides his twelve lectures, were inconsiderable. They consisted chiefly of 'A Letter to Mr Brant, the son of a Mohawk Chief;' 'Letters to the Students of the Glasgow University;' an article on 'The University of London;' two or three reviews, one of which was on Milton's theological tract; another of the four first volumes of Las Casas's Napoleon, 'Hugh's Travels,' 'Moore's Byron and Sequel,' with articles on the 'Civilisation of Africa,' on the 'Sonnets of Shakspeare,' and on 'Flaxman's Lectures.' He also wrote a few small print criticisms, some very hurriedly, and others more carefully. He would also, when a friend died, give two or three lines of memorial for the obituary. Of these articles the paper on Flaxman was the most remarkable, from having been just published and read to Sir Thomas Laurence when that artist was dying. The painter and poet had long been intimate friends, and the latter was much shocked at the intelligence of Laurence's decease, which came upon him unexpectedly on a chance meeting with Sir James Mackintosh, as he was starting with a friend upon a walk to Dulwich. The article in the Edinburgh Review on Flaxman, which gave rise to Campbell's paper, was supposed to be written by some friend of Chantrey the sculptor. The poet defended Flaxman's opinion, that anatomy was a necessary study for a sculptor; but Chantrey undervalued what he had never learned.

In 1824, while connected with the magazine, Campbell published the 'Last Man,' one of his happier efforts. He fancied that Byron, in the poem of 'Darkness,' had stolen his idea. It was singular that he imagined the idea of a 'last man' to be novel, for it is found in a poem printed in the beginning of the century; and in Bishop Horne's sermon on the 'Death of the Old Year,' the same idea occurs of earth being sunk in a molten deluge, and 'one man standing in the world the only survivor.' Yet the poet wrote a letter to the Edinburgh reviewers, in which, because they hinted that he had taken his idea from Byron, he charged Byron with taking it from himself fifteen years before. The idea, however, was so obvious, that it must have struck many persons. This year Campbell also

began to push his scheme for a university in London; and at the commencement of the next year, 1825, after enlisting Mr Brougham, Mr Hume, and others in its behalf, he paid a visit to some of the continental universities, particularly to that of Berlin, to improve his knowledge of such institutions, with a view to the internal regulation of one in London. His subsequent interference in the scheme was little, Brougham taking the lead. On the foregoing visit to the continent Campbell went to Hamburg, where, after an absence of twenty-five years, he saw some of his old friends of 1800, particularly the Exile of Erin, Anthony McCann, for whom he had in vain tried to obtain leave to return to his native land.

Our author next began a life of Laurence, the materials being in great part collected by himself: the labour commenced, was quickly abandoned, and the work handed over to a friend. During his engagement with the magazine, he was one day waited upon by a friend of Mr Brant, the son of the Indian chief to whom he alluded in his *Gertrude* as the Mohawk Brant, charging him with cruelty. The son was an accomplished gentleman in the British service, and a field-officer. The Indian chief, Brant, as it appeared, was not present at the sack of Wyoming; and Campbell attached an exculpatory note to the subsequent edition of his poems, stating that the name of Brant must be esteemed fictitious.

Soon after the resignation of his editorship, Campbell sought for a reconciliation with his brother poet Thomas Moore. There had been a coolness between these two distinguished men from the time the former undertook a defence of Lady Byron in an article in the magazine. He had treated Moore with a roughness by no means merited, and now addressed a letter to him apologising for his vehemence. At the same time he declared, with that latent self-respect which formed a part of his character even to vanity, that his sentiments upon the point of difference 'were unaltered.' He only desired the forgiveness of Moore for his heat. The cause of the difference was owing to that impulsive action for right or wrong, continually preceding reflection, which was a part of Campbell's nature. Of his forgiving temper there were proofs in cases of less moment to others than himself. Hence his character was often mistaken by those who were not aware of his peculiar disposition.

During his editorship of the magazine, Campbell had been elected Lord Rector of Glasgow university, having a considerable majority over the other two candidates—Canning and Sir Thomas Brisbane. He immediately repaired to Glasgow, where a political dinner was proposed to be given to him, which he declined. He delivered his inaugural address in the beginning of 1827, having been elected in the previous November. Ardently attached to his native city, and the place of his education, where he was now so honoured, he carried his feeling of gratification almost to weakness. He annexed to the office an importance, even out of Glasgow, which no one else would have thought of doing, and which it could hardly bear. But his temperament, excited by the recall of early sensations and feelings, rendered this very excusable. He dined with the *Senatus Academicus* in the room where he had never been but once before in his life, and that was when a youth on a charge of breaking the windows of the college church!

All the documents relative to the university were laid before him, and he was treated with great politeness and cordiality by the professors. He was very popular with the students, distributed the college prizes to them, and after nearly two months' absence, returned home full of almost youthful joyousness. He left London for Glasgow again at the close of the year, and was re-elected in November. Three of his letters to the Glasgow students appeared that year in print, exhibiting proofs of his previous laborious acquirements in their seminary. The diction of these letters was remarkably neat and pure. He left Scotland towards the end of November for London, having that year been absent nearly four months. He came back full of a plan for a classical encyclopædia, to be continued through the assistance of the Glasgow students who were most advanced. This plan shared the fate of the poet's other thousand-and-one projects.

While in Glasgow he was attacked with indisposition, suspected to originate in the liver, but recovered under the influence of medicine. This seems to have been the first time the seat of his disorder was suspected, and which, by care, he might have checked. He was for some time wholly unfit for literary labour. Sir Thomas Laurence now made an offer to him on behalf of the Glasgow students, to paint their Lord Rector's picture for the Great Hall of the Museum at a reduced price; an instance of kindness on the part of Sir Thomas which merits record; but the matter was not proceeded with. In the meanwhile the copyright of the 'Pleasures of Hope' had returned to him by the expiration of the copyright act. He now planned a new and complete edition of his works, to be handsomely printed and illustrated; and had scarcely taken a preliminary step in the matter, when his wife was attacked with an illness which proved fatal on the 9th of May 1828. Two months before her decease, the state of uncertainty in which she lay completely unhinged the poet for any kind of work. Anxious to see a complete edition of his poems, and declaring his utter inability to execute a task at the moment of the utmost importance to his interests, he became impatient and excited. He was attacked with temporary blindness, and was completely incapacitated for business of any kind. His friend Cyrus Redding undertook to bring out the collected edition of his poems in his behalf; but Campbell was in such a state of mind, that he could with difficulty be got to decide whether some of the pieces attributed to him were his own or not. This edition appeared in two volumes, with a likeness of the author, from a portrait by Laurence.

He was invited to stand a third time for the Lord Rectorship of Glasgow at the close of that year. This honour was flattering; but Scott was now set up against him, and the voting was even. The casting-vote was then given illegally by the poet's own vice-rector against him; and Scott, with that noble feeling which always distinguished his intercourse with literary men, at once declined the honour. Campbell, therefore, was installed for the third time. He had left London just before his election, prior to which he had given a 'legal' authority to his friend Redding to act as he might see fit about his son under any circumstances that might arise. The condition of his son made him at the moment exceedingly anxious. On arriving in Edinburgh he found his eldest sister ill. 'Everything,' he wrote, 'and every face in Glasgow are a stab to my recollections of the past. I left

my son in a ticklish frame of mind, and I have the prospect of not long possessing the nearest and the dearest of my earthly relations.' This sister survived until the year before his own decease.

About this time a club was founded among the students in the university of Glasgow, called the Campbell Club. His inaugural address this year on his installation was sensible and well-written. It announced two silver and two gold medals: the silver for 'gowned' students, the gold for 'ungowned.' The first was to be for the best English essay 'On the Evils of Intolerance towards those who Differ from us in Religion;' the second, 'On the Comparative Importance of Scientific and Classical Instruction in the General Education of Mankind.' He wound up by recommending to the students, that 'if any feuds had sprung up among them in consequence of the election, that they should bury them all in generous oblivion.' He visited Scotland again in the beginning of April, in a little more than three months after his former journey, and remained about a month. Upon his return from this journey, he changed his residence from Seymour Street West to Middle Scotland Yard, Whitehall. There he began to give parties. This did not endure long. His fondness for clubs once more exhibited itself in the formation of the Literary Union. This society, which promised well at first, afterwards degenerated into an ordinary club, and expired of inanition not long before the poet's decease. The original idea was good, but the poet was not one possessing a character of steadiness to carry it out with the needful requisites. His principal desire was to connect it with literary views and objects. He was chairman of the committee, and produced scheme after scheme, which passed away; and though one or two literary papers were read, the institution degenerated into a commonplace thing. The committee even found it difficult to confine their chairman to the routine of the common weekly business. Figures and accounts he held in impatient distaste: he would jest and talk politics, and scarcely attend to business when told time was precious.

In 1831 Campbell and his former coadjutor became connected with the 'Metropolitan.' The poet at first was only bound to lend his name, and to furnish something for the work now and then. He was to receive half the income he had enjoyed from the old magazine, and to reside where he pleased. He had by this time left Scotland Yard, and gone for a time to Hastings, or rather St Leonard's, in Sussex. Soon after the work began, a naval officer, who had been a contributor, thinking the speculation was good, took a large share from the bookseller, and became in law his partner. Unluckily for him he was totally unacquainted with trade, and with the hazard of being involved with a person who might be destitute of capital. Thus imprudent, he offered Campbell a share for a few hundred pounds. The bad state of the bookseller's affairs was unfortunately but too soon discovered, and by an honourable conduct on the part of the individual alluded to, who had involved himself and the poet, the latter got back the money he had advanced; but the unfortunate officer, striving to avoid being made a partner with a bankrupt tradesman, lost his lawsuit, and had to pay some thousands of pounds. The work, which had been pledged to the printer, then fell into the hands of Captain Marryat, the novelist, who bought it with the design of being his own editor, but made no hand of that duty.

At Christmas 1832 the work rested wholly, both property and editorship, with him. Prior to that period it had had contributions from Campbell, Moore, and Montgomery of Sheffield, both in prose and verse; and had it been sustained by proper funds, would no doubt have flourished. Before the establishment of the 'Metropolitan,' the poet had taken up with warmth the cause of the Polish exiles. When he published the 'Pleasures of Hope,' the poem had been speedily translated into several European languages. It had found its way into Poland, was admired there, and the mention of the fall of Polish liberty in the 'Pleasures of Hope' rendered Campbell's name a favourite in the extinguished kingdom. He had kept up a correspondence with some of the leading Poles afterwards, long before the last attempt they made at emancipation.

Besides the Poles, in whose behalf he was incessantly engaged, he began the 'Life of Mrs Siddons' with far more scanty materials than he had possessed for that of Sir Thomas Laurence. He took up his lodgings in Duke Street, St James's, at what were called the Polish Chambers, where the zeal displayed by Mr Bach, secretary to the Polish Association, attached the poet to him strongly: nor was the attachment less strong on the other side. There was a remote attic in the house, where the poet could be as retired and studious as he pleased without the knowledge of any one but his friend Bach. Here, after the poet's decease, under promise of its preservation by the landlord of the house, Mr Bach had a marble tablet placed, with the following inscription so honourable to his friendship:—'In this attic Thomas Campbell, Hope's Bard, and mourning Freedom's Hope, lived and thought, A.D. 1832, while at the head of the Literary Association of the Friends of Poland, his creation. *Divine virtutis pietati amicitia*, 1847.'

The 'Life of Mrs Siddons' was a difficult task to execute, owing to the paucity of materials. The booksellers would not look at it in less than two volumes. Matter was laboriously collected to eke out the required quantity; but the middle of the year 1834 had arrived before the biography made its appearance. It was printed in type larger than the ordinary size, to make it extend to a second volume. Campbell considered that in completing this undertaking he was fulfilling a sacred promise to one whom he had long known and esteemed. The work did not go off well. The public expectation had been too long upon the stretch of expectation, and curiosity had subsided. Besides, the style was indifferent; and the author was not fitted for the task by any acquaintance with the small-talk of the theatre.

This biography being published, the poet visited Paris after twenty years of absence. There the Polish Literary Society gave him the honour of a public dinner, at which Prince Czartoyisky presided. He began, too, while there, but soon dropped, a work on the 'Geography of Classical Literature.' He then proposed to visit Italy; but the mention of Algiers caused him to change his direction to Africa, and his impatience made him embark at Marseilles in a crazy merchant-vessel, which fortunately arrived safely. The result of his visit he published in his 'Letters from the South.' He was kindly treated by the French military, and visited Oran and Bona in turn; but was much affected in health by the climate. While he sojourned in Africa, the death of his old friend Telford took

place. He left the poet £1000. Campbell returned from Algiers in 1835, and arriving in Paris was presented to King Louis-Philippe.

After his return home he proceeded with the publication of an illustrated edition of his poems. He also visited Scotland the next year, where he was entertained at the Campbell Club in his native city, together with Professor Wilson, and other distinguished friends. No difference in politics ever interrupted the friendship between Campbell and Wilson. In Scotland the poet launched his anathemas against the despot of Russia, as was his custom in London and Paris, both in public and private society. At Edinburgh he was presented with the freedom of the city. Campbell made a speech here, in which he paid a pleasing tribute to Professor Wilson as a genius of the highest order, of whom Scotland might well be proud. He visited Edinburgh again in the following year, and took the chair at a Printers' Festival in that city on the 7th of June. Towards the close of this year he edited an annual, these ephemera being then nearly gone out of vogue. This, in his better days, he would not have done, or lent his name to do. He was getting senile, and when he wanted money less than before, he became more eager to acquire it. He had left his chambers in St James's Street before he went to Scotland. On his return he took lodgings in Alfred Place, Tottenham-Court Road; and then removed, towards the end of 1837, into chambers in Lincoln's Inn Fields. He squandered considerable sums in these changes. He could not do without his books and furniture, and every change required fresh fittings and cases. While complaining of the narrowness of his income, now never less than £600 or £700 per annum, he did not put down these expenses, almost annually incurred, as of any moment, for he was a bad financier.

The engravings for his illustrated works still proceeded. Turner executed twenty-five of the drawings. It sold very well, as did a cheap edition published by Moxon the bookseller. In 1838 he placed his name to a life of Shakspeare, which he overlooked; but his name was the only advantage the edition derived from his connection with it. He was past all literary labour requiring research and thought. The Queen accepted from him the present of his works; and the poet, in grateful acknowledgment, went to court. Her Majesty soon afterwards did him the honour to send him her picture. This picture, and the silver goblet presented him by the students of the Glasgow university, became so much his favourites, that he afterwards made allusions to them with a frequency that too surely indicated the change which time had wrought upon him, and how small a thing called out a display of the vanity he would have concealed in earlier days. Notwithstanding, he began a 'Life of Petrarch,' or rather a dressing up of Archdeacon Cox's Life, while in Lincoln's Inn Fields. Upon this subject his friend Foscolo had years before told him that nothing new could be said. It could not add to his reputation, much less could a small volume of poems he afterwards published in 1842, the principal of which was called the 'Pilgrim of Glencoe,' and which was far below mediocrity. A retrospective glance at the poet's former glorious works made the world feel the change that had occurred in the valueless character of this volume more strongly. With the advance of years, that pride of feeling, that lofty self-respect which marked the poet's career for

two-thirds of his life in literature, had disappeared. The incitement of money made him go even further, and he subsequently placed his name to a 'Life of Frederick the Great,' as being compiled under his revision: a poor effort in biographical composition.

Even in 1839 his appearance had greatly changed in the eyes of those who saw him only at intervals. In 1840 this change was more strongly marked; yet he talked of founding a club, to be called *The Alpha*, and of new designs. He seems after his short residence in Lincoln's Inn Fields to have become tired of the spot. He had been a wanderer after his wife's death. He had tried the same kind of domestic establishment for a year or two, and could not find his former comfort. His son he had sent to an asylum at Epping. He then went from lodging to lodging, visited and journeyed, but was still far from discovering a rest for his feet, as of old. He spent time in company which he would otherwise have passed at the domestic hearth. After all his desultoriness, he came back in 1840 to what he hoped would give him domestic life again. He bought the lease of a house in Victoria Square, Pimlico, and sent to Scotland for Mary Campbell, a niece, the daughter of his second brother. He corrected the last proofs of '*Petrarch*' here, and promised himself once more that peace from which he had been long estranged. But he could not revive the past. His health, not mended, made him still whimsical and restless. He had seen a pretty child one day as he entered the Park, and its face haunted him. He fancied a second sight would be gratifying, and he actually advertised for this indulgence, relying upon his own description for a success, which, it need not be added, he did not find.

In an ailing state of body he paid a visit to the baths of Wiesbaden, but returned with his health no way amended. It was evident that he was rapidly declining throughout 1841 and 1842; yet amidst all he never lost sight of his usual pursuits. In 1842 he talked of publishers and their expectations, as if they were new to him, and projected fresh undertakings. We are all reluctant to wound our self-love by giving credit to any diminution of our ability. This year he made his will, and bequeathed all he might leave behind him to his niece, Mary Campbell. His son was provided for by the interest of the legacy from the Ascoy estates, being the interest on £4500, about £200 per annum. He became as unsettled, restless, apprehensive, and even irregular as usual. His countenance exhibited anxiety and bodily decay. His former neat appearance vanished, and he was negligent in his dress. Sometimes he lit up in a mode that recalled what he had once been, but this was seldom. Yet his kindness to his friends suffered no diminution, and he was still active in his habits. He visited Cheltenham, but without any benefit.

In 1843 he lost his only surviving sister, and by this the sum of £800 came into his hands. He had an idea that even with his pension of £300 a year, the interest of the legacy from the Ascoy estates, and the profits of his works, between £600 and £700 a year at least, he might still find himself want. He therefore insured his life injudiciously, and lost £500. This made him think of going to the continent, to live frugally, disregarding the heavy expenses of removal with his library, and a certain loss on the lease of his house, which would balance any saving. Undetermined

for some time whither to proceed, he fixed upon Boulogne. At the commencement of October 1843 he removed there. His house was in a bad situation. It was cold, and the severity of the winter soon acted perniciously upon his debilitated frame: he then talked of removing more to the southward as soon as he was able. Day by day he complained of the chilliness he felt, at the same time not paying any attention to his mode of life. In February 1844 he was too weak to write even a few lines without pain. He complained that the climate made him torpid. In April he seemed to revive for a time with the softening atmosphere. Through May this improvement did not continue.

At the commencement of June it was seen that his case was utterly hopeless. For a long while he held no conversation with any one, and his appearance was more altered. When questioned about his health, he either complained of weakness and chilliness, or replied in a general way 'tolerably well.' His countenance betrayed great anxiousness, and he was usually in a state of half slumber to appearance, but retaining the full use of his mind. A few days before he departed, in order to try if he was sensible, the question was asked near his bed, if some one, giving a name, had not written 'Hohenlinden.' The poet calmly and distinctly replied, 'It was one Tom Campbell!' They talked of taking him to the seaside if he grew better, but he gave a look incredulous of that possibility. His respiration now became impeded, but he talked a little at intervals. This was at the end of the first week in June. Œdema of the right ankle was at this time perceived. He was calm, and said his mind was quite easy; that he had entire control over it. On the 8th of June he exhibited œdema of the left leg and foot. Some one saying he was better, he observed, 'I am glad you think so.' In reply to a communication, he requested his niece to write to Cyrus Redding, his old literary condutor, the state of his health, with his kind remembrance. On the 10th of June every favourable symptom had disappeared. He complained of his strength sinking, but had still a perfect command over his mind, and was quite calm. It being observed that he had great patience, he said, 'I do suffer.' The next day he thought he felt stronger, and he had a look of cheerfulness, but this was succeeded by difficulty of breathing. He repeated that his mind was quite easy. The next night was passed easily, and the following day but one, the 13th, while his breathing was more laborious, he was still quite sensible, and listened attentively to all going on around. A friend from London arriving, the poet said he was glad to see him. On the 14th he spoke with some effort inarticulately, saying 'tolerable!' to all inquiries. His respiration now became more hurried, but he was still conscious. His lips were firm, as if he were disposed to meet the last struggle with manliness. At one time appearing to sleep, his lips were observed to move, and he said in a slow distinct whisper, 'We shall see - - - to-morrow,' naming a departed friend. He appeared to be losing the consciousness and self-possession which marked him before from that time. On giving him something he said, 'Thank you—much obliged!' These were the last words he uttered clearly and intelligibly. The next day was the poet's last: he answered a question put by his niece with much difficulty, but with great kindness, and soon after slumbered. There was no more restlessness; his appearance was serene, except when convulsive

breathings took place as he reposed upon his side. Two hours after noon he opened his eyes, and then closed them for ever. He expired without a struggle at a quarter past four P. M.

The foregoing statement is mostly from that of his medical attendant and executor, Dr William Beattie, who was at the poet's bedside when he expired, and who, with every professional attention, united the kindly concern of a friend.

The task yet remains to assign to Campbell that place in the ranks of the British poets to which his works entitle him. One proof of his merit is that he has been quoted more than any modern poet in the senate, by public orators, and by cotemporary literati. He had, too, the rare happiness of living to see his fame fixed upon an unshaken basis. His verses cannot be mistaken for those of any other English poet; his odes do not resemble those of Dryden, Collins, or Gray: they stand alone. His manner was singular: Scott said he could imitate all the modern poets but Tom Campbell; he could not imitate him, because his peculiarity was more in the matter than the manner. Whatever niche in the temple of fame is hereafter assigned to him, his works are such as fame will not easily let die.

The remains of the poet were brought to England, and interred in Westminster Abbey by the side of the ashes of Sheridan, on the 3d of July 1844. The funeral was numerously attended by the titled and untitled, by the literary and non-literary. The Rev. Mr Millman read the burial service; and at the hour of noon, the dust of him whose works had so long been the delight of his native land was left to its last long repose.

